

154IHSSF1208



DocumentID NONCD0002854

Site Name FIBER DYNAMICS

DocumentType Site Assessment Rpt (SAR)

RptSegment 1

DocDate 11/30/2011

DocRcvd 1/17/2012

Box SF1208

AccessLevel PUBLIC

Division WASTE MANAGEMENT

Section SUPERFUND

Program IHS (IHS)

DocCat FACILITY

REPORT OF GROUNDWATER SAMPLING AND ANALYSIS – 4th QUARTER 2011

**FIBER DYNAMICS, INC.
200 SOUTH WEST POINT AVENUE
HIGH POINT, GUILFORD COUNTY, NORTH CAROLINA
SITE ID# NON CD0002854**

Prepared for:

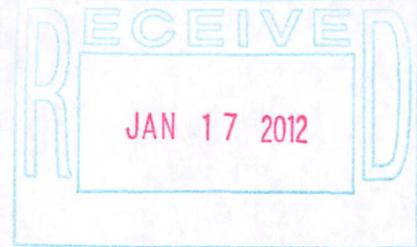
**Fiber Dynamics, Inc.
200 South West Point Avenue
High Point, North Carolina 27261**

Prepared by:



**Blue Ridge Geological Services, Inc.
Archdale, North Carolina**

November 2011



November 30, 2011

Ms. Sharon Cihak
Guilford County Department of Public Health
Environmental Health Division
1203 Maple Street, 3rd Floor
Greensboro, North Carolina 27405

Subject: **Report of Groundwater Sampling and Analysis – 4th Quarter 2011**
Fiber Dynamics, Inc.
200 South West Point Avenue
High Point, Guilford County, North Carolina
Site ID #NON CD 0002854

Dear Ms. Cihak:

On behalf of Fiber Dynamics, Inc., *Blue Ridge Geological Services, Inc. (Blue Ridge)* performed additional environmental activities at the subject site in October 2011 (Figures 1 and 2). Outlined below is a summary of the field activities, laboratory results, and our conclusions and recommendations.

Field Activities

On October 31, 2011, Blue Ridge personnel measured the depth to groundwater in site monitoring wells using an electronic water level meter. On this date, the depth to water in the wells ranged from 1.51 (MW-1) to 6.18 (MW-2) feet below the top of the PVC well casing. A summary of the measurements is presented in Table 1. The groundwater elevations at each well were determined by subtracting the depth to water from the elevation of the top of the PVC casing in each well. The groundwater elevations for each well were plotted on a map and elevations were interpolated between wells by comparing the groundwater elevations at those locations considering the local and regional topography. A groundwater contour or potentiometric surface map of the surficial aquifer on October 31, 2011 is presented on Figure 3. As shown on the figure, the generalized direction of groundwater flow at the site is to the east.

On October 31, 2011, Blue Ridge personnel collected groundwater samples from all seven (7) site monitoring wells. The wells were sampled using a bailer or a low-flow pump and disposable polyethylene tubing lowered to near the bottom of each well. The wells were sampled from least impacted to most impacted and field equipment was decontaminated between wells to minimize the possibility of cross contamination.

Prior to sampling, field personnel recorded select water quality parameters (pH, temperature, and specific conductivity) in each well using a field meter. The field readings are presented in Table 3. Next, field personnel collected groundwater samples from each well, placed them in laboratory-prepared containers, labeled the containers with project information, placed the samples into coolers containing ice, and transported the samples to Pace Analytical Services, Inc. in Huntersville, North Carolina for analysis.

All groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260. The ten highest tentatively identified compounds (TICs) in the VOC analysis were also measured and reported. In addition, the groundwater samples from select monitoring wells (MW-1, MW-3, MW-4, DW-1) were also analyzed for natural attenuation or biodegradation parameters, i.e., alkalinity, biochemical oxygen demand (BOD), chemical oxygen demand (COD), chloride, ferrous iron (Fe^{2+}), manganese, methane/ethane/ethene, nitrogen, sulfate, sulfide, and total organic carbon (TOC). Wells selected for analysis of natural attenuation parameters included an upgradient well (MW-1), a downgradient well (MW-3), a well in the center of the plume (MW-4), and a deep well installed into bedrock (DW-1).

A quality assurance sample (blind duplicate) was collected on each field day in general accordance with QA/QC procedures. The duplicate was analyzed for VOCs by Method 8260. A chain-of-custody form was maintained with the samples. As a result of low flow sampling, minimal purge water was generated during the field activities. The contaminated groundwater was placed into a 55-gallon steel drum for off-site disposal.

Laboratory Results

No VOCs were detected in the groundwater in monitoring wells MW-1 and MW-2. One or more VOCs were detected in the groundwater in monitoring wells MW-3 through MW-6 and DW-1 including the following: benzene (MW-4), chlorobenene (MW-3 through MW-6, DW-1), chloroethane (MW-4, MW-6), 1,2-dichlorobenzene (MW-3 through MW-5, DW-1), 1,1-dichloroethane or 1,1-DCA (MW-3, MW-6), cis-1,2-dichloroethene or cis-1,2-DCE (MW-3 through MW-6, DW-1), trans-1,2-dichloroethene (MW-4),

4-methyl-2-pentanone or MIBK (DW-1), tetrachloroethene or PCE (MW-3, MW-5, MW-6, and DW-1), toluene (MW-4, DW-1), trichloroethene or TCE (MW-3 through MW-6 and DW-1), trichlorofluoromethane (MW-3 and MW-6), and vinyl chloride (MW-3 and MW-4). The total VOCs detected in the groundwater in monitoring wells MW-3 through MW-6 and DW-1 ranged from 19.48 (MW-6) to 146.41 (DW-1) micrograms per liter (ug/L).

Alkalinity was measured in the groundwater in monitoring wells MW-1, MW-3, and DW-1 at concentrations ranging from 35 to 165 milligrams per liter (mg/L). BOD and ferrous iron were not detected in the groundwater in wells MW-1, MW-3, and DW-1. Chloride was detected in the groundwater in wells MW-1, MW-3, and DW-1 at concentrations ranging from 11.2 to 36.8 mg/L. COD was detected in the groundwater in wells MW-3 and DW-1 at concentrations ranging from 28 to 40 mg/L. Manganese was detected in the groundwater in wells MW-1, MW-3, and DW-1 at concentrations ranging from 0.301 to 0.759 mg/L.

Methane was detected in the groundwater in wells MW-1, MW-3, MW-4, and DW-1 at concentrations ranging from 0.0465 to 3.47 mg/L. No ethane or ethene was detected in the groundwater in monitoring wells MW-1, MW-3, and MW-4. No ethane was detected in the groundwater in well DW-1, however, ethene was detected in well DW-1.

Nitrogen (nitrate plus nitrite) was detected in the groundwater in wells MW-1, MW-3, and DW-1 at concentrations ranging from 0.64 to 2.1 mg/L. Sulfate was detected in the groundwater at concentrations ranging from 37 to 66.3 mg/L. Sulfide was not detected in the groundwater in wells MW-1 and MW-3; sulfide was detected in the groundwater in well DW-1 at a concentration of 6.3 mg/L. TOC was detected in the groundwater in wells MW-1, MW-3, MW-4, and DW-1 at concentrations ranging from 4.6 to 12.1 mg/L.

The groundwater analytical results for this sampling event are summarized in Table 2 (VOCs) and Table 3 (biodegradation parameters). The laboratory reports and chain-of-custody records are attached. Isoconcentration maps of PCE, TCE, and total VOCs in the surficial aquifer in October 2011 are presented on Figures 4A through 4C.

Conclusions and Recommendations

The depth to groundwater ranged from 1.51 to 6.18 feet in the monitoring wells in October 2011. These water levels are similar to previous measurements at the site. The generalized direction of groundwater flow at the site in October 2011 is to the east which is similar to previous sampling events.

No VOCs were detected in the groundwater in monitoring wells MW-1 and MW-2. The total VOCs detected in the groundwater in monitoring wells MW-3 through MW-6 and DW-1 ranged from 19.48 (MW-6) to 146.41 (DW-1) micrograms per liter ($\mu\text{g/L}$). Three VOCs (PCE, TCE, and vinyl chloride) were detected in the groundwater in one or more of the monitoring wells at concentrations above the NCDENR 2L Groundwater Standards (2L Standards). PCE was detected in wells MW-3, MW-5, MW-6, and DW-1 at concentrations ranging from 16.6 to 85.3 $\mu\text{g/L}$ which is above the 2L Standard of 0.7 $\mu\text{g/L}$. TCE was detected in wells MW-5 and DW-1 at concentrations ranging from 3.7 to 4.1 $\mu\text{g/L}$ which is above the 2L Standard of 3 $\mu\text{g/L}$. Vinyl chloride was detected in wells MW-3 and MW-4 at concentrations ranging from 0.66 to 7.7 $\mu\text{g/L}$ which is above the 2L Standard of 0.03 $\mu\text{g/L}$.

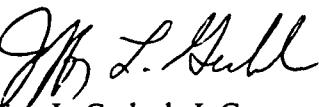
In general, the VOC concentrations detected in the groundwater in the monitoring wells in October 2011 were fairly similar to previous sampling events (see Table 2). However, the PCE concentrations in the groundwater decreased in wells MW-2, MW-3, and DW-1 since the last sampling event in November 2009/February 2010. Also, the number and concentration of PCE degradation products (i.e., cis-1,2-DCE, TCE, vinyl chloride) increased in well MW-4 located in the middle of the contaminant plume.

As shown on Figures 4A through 4C, the horizontal extent of VOCs detected in the groundwater is reasonably defined and the majority of the plume is located on-site. The plume shape/size was similar to previous sampling events.

1,1-DCA, cis-1,2-DCE, trans-1,2-DCE, TCE, and vinyl chloride were detected in the groundwater in several of the monitoring wells; these constituents are degradation products of PCE and their presence in the center and centerline downgradient of the contaminant plume indicates that bioremediation/natural degradation is occurring in the groundwater at the site. In addition, the levels of pH, alkalinity, chloride, ethane, methane, nitrogen in many of the wells sampled indicated that natural attenuation is occurring at the site. A more detailed discussion of these parameters will be presented in the Remedial Action Plan (RAP) to be finalized in December 2011.

We recommend continued groundwater sampling of site monitoring wells to monitor the VOC concentrations and plume degradation. Please contact the undersigned if you have any questions regarding this report or the project.

Sincerely,


Jeffrey L. Gerlock, L.G.
NC Licensed Geologist #1141
Registered Environmental Consultant #149



Attachments –Tables, Figures, Laboratory Reports

cc: Mr. Jim Heery, Fiber Dynamics

TABLES

TABLE 1

MONITORING WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATION DATA

FIBER DYNAMICS, INC.
 200 SOUTH WEST POINT AVENUE
 HIGH POINT, NORTH CAROLINA
 SITE ID# NONCD 0002854

Well No.	Date Installed	Ground Elevation (ft, btoc)	Screened Interval (ft, bgs)	Total Well Depth (ft, bgs)	Date Water Level Measured	TOC Elevation (ft, btoc)	Depth to Water (ft, btoc)	Groundwater Elevation (ft, btoc)
MW-1	11/4/2009	893.12	11 to 16	16.0	11/9/2009	892.74	1.58	891.16
					11/17/2009		1.18	891.56
					11/24/2009		1.12	891.62
					10/31/2011		1.51	891.23
MW-2	11/4/2009	888.71	14 to 19	19.0	11/4/2009	888.42	6.17	882.25
					11/9/2009		6.17	882.25
					11/17/2009		5.73	882.69
					11/24/2009		5.49	882.93
					10/31/2011		6.18	882.24
MW-3	11/4/2009	887.13	16 to 21	21.0	11/4/2009	886.51	4.29	882.22
					11/9/2009		4.28	882.23
					11/17/2009		3.87	882.64
					11/24/2009		3.64	882.87
					10/31/2011		4.29	882.22
MW-4	11/5/2009	888.43	9 to 14	14.0	11/9/2009	888.15	4.60	883.55
					11/17/2009		4.27	883.88
					11/24/2009		4.05	884.10
					10/31/2011		4.50	883.65
MW-5	11/5/2009	890.38	9 to 14	14.0	11/9/2009	890.01	8.96	881.05
					11/17/2009		6.15	883.86
					11/24/2009		2.25	887.76
					10/31/2011		4.21	885.80
MW-6	11/5/2009	888.90	13 to 18	18.0	11/4/2009	888.48	3.97	884.51
					11/9/2009		3.94	884.54
					11/17/2009		3.57	884.91
					11/24/2009		3.34	885.14
					10/31/2011		3.91	884.57
DW-1	2/9/2010	NS	50 to 55	55.0	2/9/2010 10/31/2011	Not Surveyed	3.60 4.70	NS NS

Notes:

Measurements are in feet below ground surface (bgs) or below the top of the PVC well casing (btoc).

Groundwater levels were measured using a Heron water level meter.

Elevations are feet above the 1988 North American Vertical Datum (NAVD) and are referenced from a nearby vertical control monument.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLING RESULTS - VOCs/SVOCs

FIBER DYNAMICS, INC.
200 SOUTH WEST POINT AVENUE
HIGH POINT, NORTH CAROLINA
SITE ID# NONCD 0002854

Geoprobe/Well	Date Sampled	Volatile Organic Compounds (VOCs)																	SVOCs		
		Acetone	Benzene	2-Butyne (MEK)	Chlorobenzene	Chloroethane	1,2-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl chloride	Total VOC TICs	Total VOCs	Total SVOC TICs	Total SVOCs
B-6	9/29/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4	ND	ND	2.2	ND	NA	4.6	NA	ND
P-1	4/29/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	NA	5	NA	ND
P-2	4/29/2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P-3	4/29/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
MW-1	11/4/2009 10/31/2011	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	<1 <1	ND ND	ND ND	2.2 <0.62	ND ND	ND ND	29 NA	29 NA	
MW-2	11/4/2009 10/31/2011	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	2.7 <0.46	ND ND	<1 <1	ND ND	<1 <0.62	ND ND	2.7 ND	14 NA	14 NA
MW-3	11/4/2009 11/4/2009 10/31/2011	ND ND ND	ND ND ND	1.3 1.3 1.6	ND ND ND	1.3 1.4 1.1	<1 <1 0.38 J	1.3 1.2 1.7	ND ND ND	ND ND ND	ND ND ND	ND ND ND	36.5 34.2 52.8	ND ND ND	2.3 2.5 2.7	7.5 8.4 3.7	1.7 1.9 0.66 J	ND ND ND	51.90 59.84 64.64	79 59 NA	79 59 NA
MW-4	11/6/2009 10/31/2011 DUP (MW-4)	62.5 ND ND	<1 0.49 J 0.51 J	8.9 0.75 J 0.73 J	<1 1.9 2.0	<1 0.65 J 0.55 J	ND ND ND	1.6 10.4 8.3	<1 0.87 J 0.94 J	2.8 <1 <1	ND ND ND	11.5 4.2 7.7	<1 ND ND	4.2 6.8 7.7	ND ND ND	3.7 5.28 22.49	5.56 29.94 22.49	100.76 NA NA	37 NA NA		
MW-5	11/9/2009 10/31/2011	ND ND	ND ND	1.1 1.0	ND ND	1.8 1.1	ND ND	2.5 2.1	ND ND	ND ND	ND ND	ND ND	65 76.9	ND ND	5.2 4.1	ND ND	<1 <0.62	ND ND	75.60 85.20	17 NA	17 NA
MW-6	11/6/2009 11/6/2009 10/31/2011	ND ND ND	ND <1 0.25 J	<1 <1 0.17 J	ND ND ND	<1 <1 0.61 J	<1 <1 0.49 J	<1 ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	8.8 8.6 16.6	ND ND ND	<1 <1 0.78 J	<1 <1 0.58 J	<1 <1 <0.62	ND ND ND	17.71 8.60 19.48	26.51 NA NA	134 NA NA
DW-1	2/10/2010 10/31/2011	ND ND	ND ND	<1 0.46 J	ND ND	<1 0.44 J	ND ND	5.1 3.1	ND ND	ND ND	ND ND	ND ND	152 85.3	<1 0.41 J	8.7 3.7	ND ND	<1 <0.62	ND 31.4	165.80 146.41	123.1 NA	123.1 NA
2L Standard (ug/L)		6000	1	4000	50	3000	20	6	70	100	NE	NE	0.7	600	3	2000	0.03	NE	NE	NE	NE

Notes:

Results are presented in micrograms per liter (ug/L)

SVOCs = semi-volatile organic compounds

2L Standard = NCDENR NCAC Subchapter 2L Groundwater Classifications and Standards

J = Estimated Value (between Method Detection Limit and Reporting Limit)

ND = Not Detected

NA = Not Analyzed; N/A - Not Applicable

NE - Not Established

TICs = Tentatively Identified Compounds

TABLE 3
SUMMARY OF GROUNDWATER SAMPLING RESULTS - BIODEGRADATION PARAMETERS

FIBER DYNAMICS, INC.
200 SOUTH WEST POINT AVENUE
HIGH POINT, NORTH CAROLINA
SITE ID# NONCD 0002854

Well	Date Sampled	Field pH (s.u.)	Field Temp (°C)	Field Conductivity (mV)	Alkalinity	BOD	Chloride	COD	Ethane	Ethene	Iron, Ferrous	Mn - Total (ug/L)	Methane (ug/L)	Nitrogen (NO ₃ + NO ₂)	Sulfate	Sulfide	TOC
MW-1	10/31/2011	6.62	19.9	31	35	ND	11.2	ND	ND	ND	ND	431	64.4	2.1	66.3	ND	4.6
MW-2	10/31/2011	6.92	17.8	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/31/2011	7.13	16.1	4	155	ND	36.8	28.0	ND	ND	ND	759	46.5	1.8	47	ND	6.4
MW-4	10/31/2011	7.06	19.8	8	NA	NA	NA	NA	ND	ND	NA	NA	984	NA	NA	NA	12.1
MW-5	10/31/2011	7.13	16.8	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-6	10/31/2011	7.08	17.1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DW-1	10/31/2011	7.10	16.6	5	165	ND	26.7	40	ND	15.3	ND	301	3,470	0.64	37	6.3	8.9
Values Conducive to Natural Attenuation		5 - 9	> 20	NE	> 2x background	NE	> 2x background	NE	>0	>0	> 1	NE	> 500	Nitrate<1	< 20	> 1	> 20

Notes: Results expressed in milligrams per liter (mg/l) unless otherwise specified (ug/L = micrograms per Liter)

Red values indicate negative readings

Background is MW-1

ND = Not Detected; NA = Not Analyzed; NE = Not Established

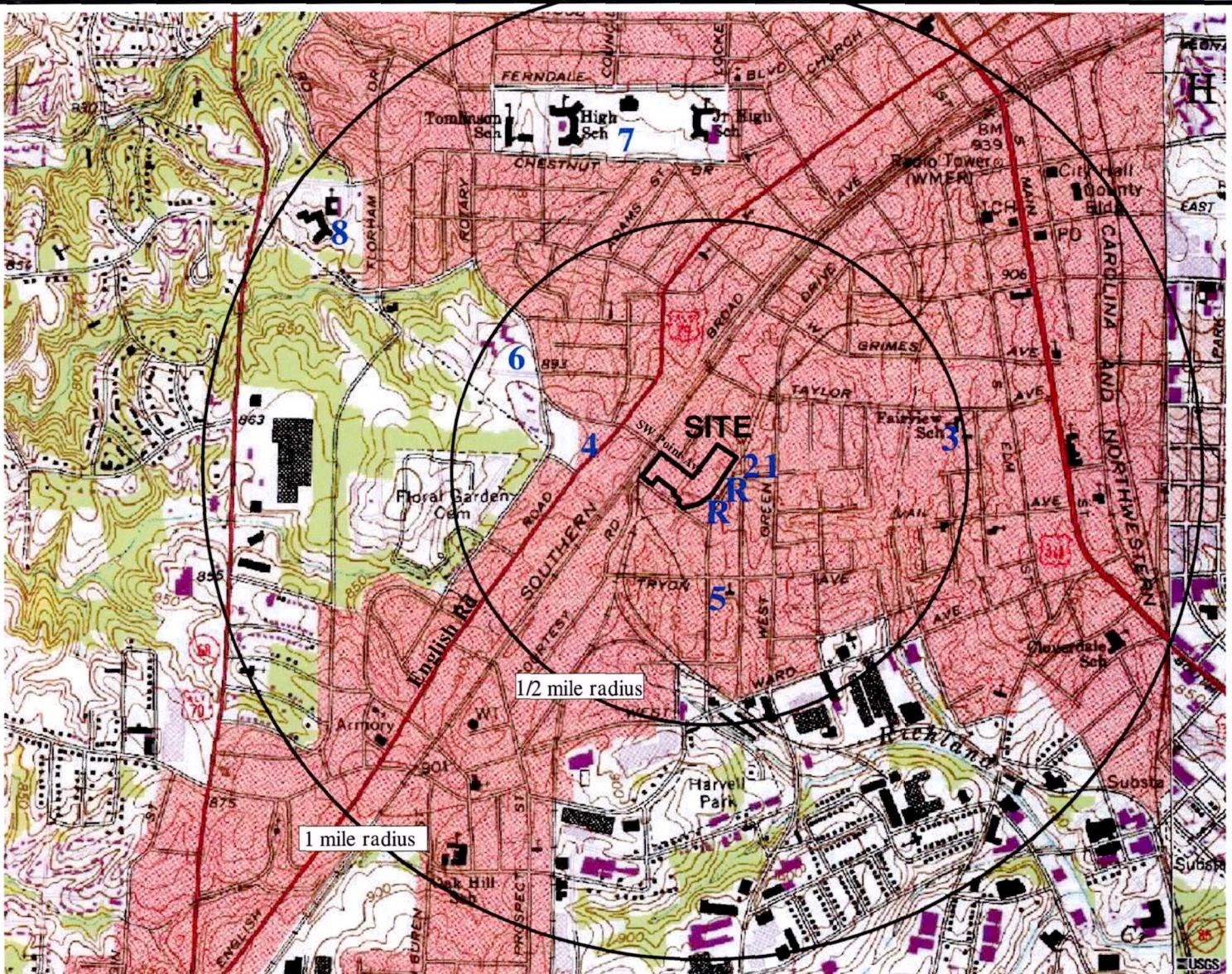
BOD Biological Oxygen demand

COD Chemical Oxygen demand

DO Dissolved Oxygen

TOC Total Organic Carbon

FIGURES



Legend

- 1 = Body of Christ Christian Church
- 2 = Calvary Church of God of Prophecy
- 3 = Southside Children's Center, Fairview Elem (Pre-K) Day Care
- 4 = High Point Family Day Care
- 5 = Agape Family Ministries
- 6 = Green Street Baptist Church
- 7 = Tomlinson School, Academy at Central, Ferndale Middle School, High Point Central High School
- 8 = Wesley Memorial Methodist Church
- R = Residences

Note: No water supply wells, springs, or surface water intakes used as sources of potable water observed or reported within 1/2 mile radius.

Scale: 1 inch = 1,700 feet

REF.: USGS High Point West NC Quadrangle Map dated 1969
photorevised 1987 from Microsoft TerraServer



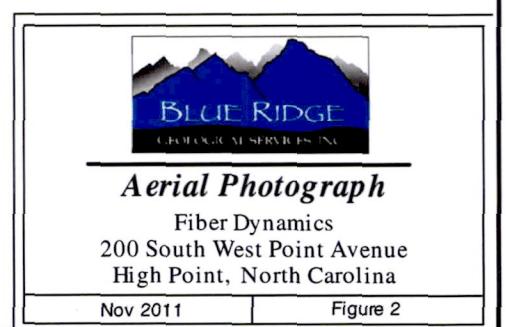


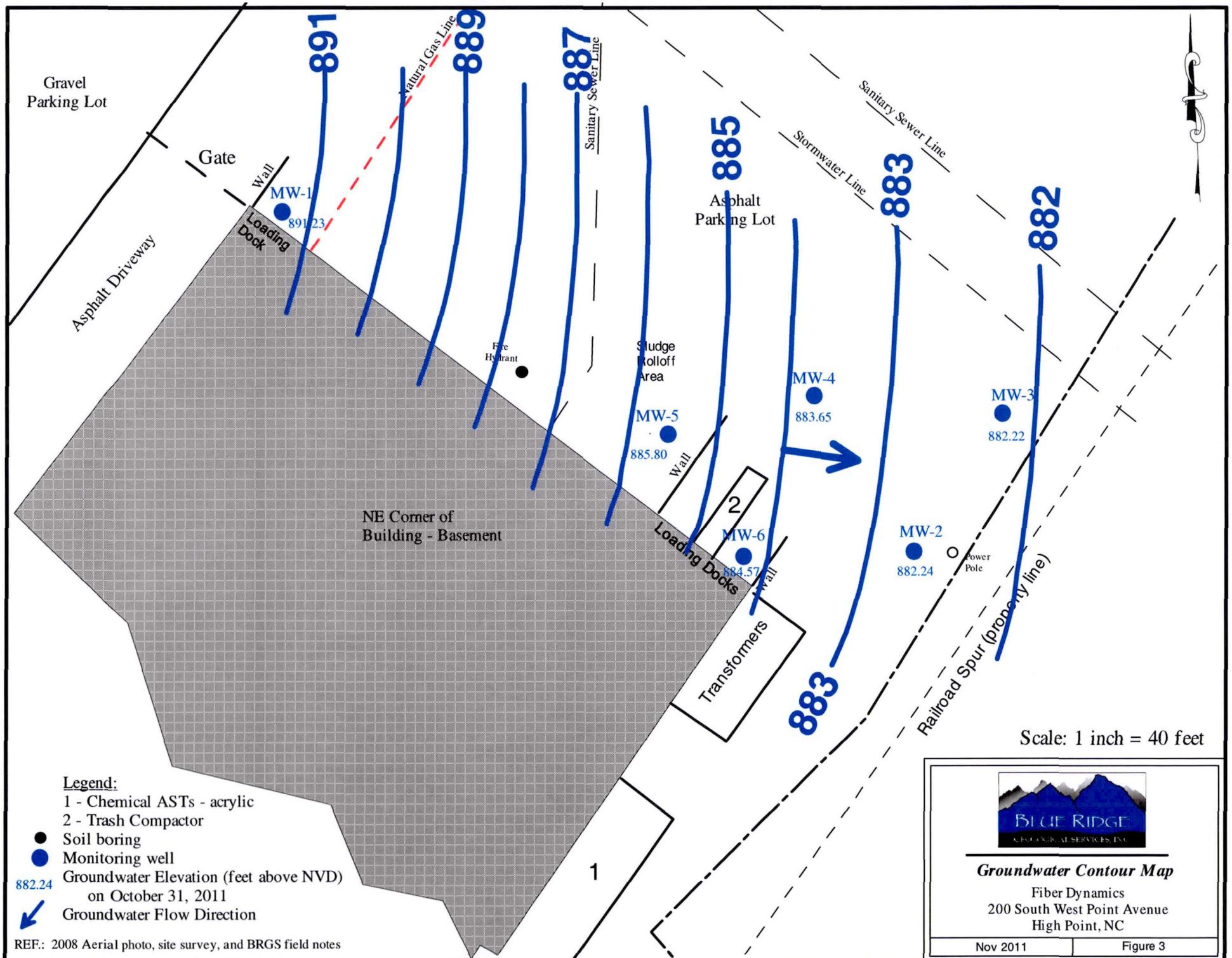
Legend

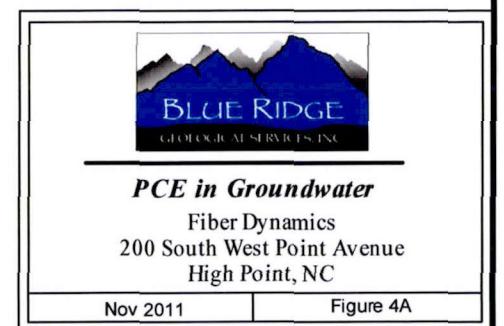
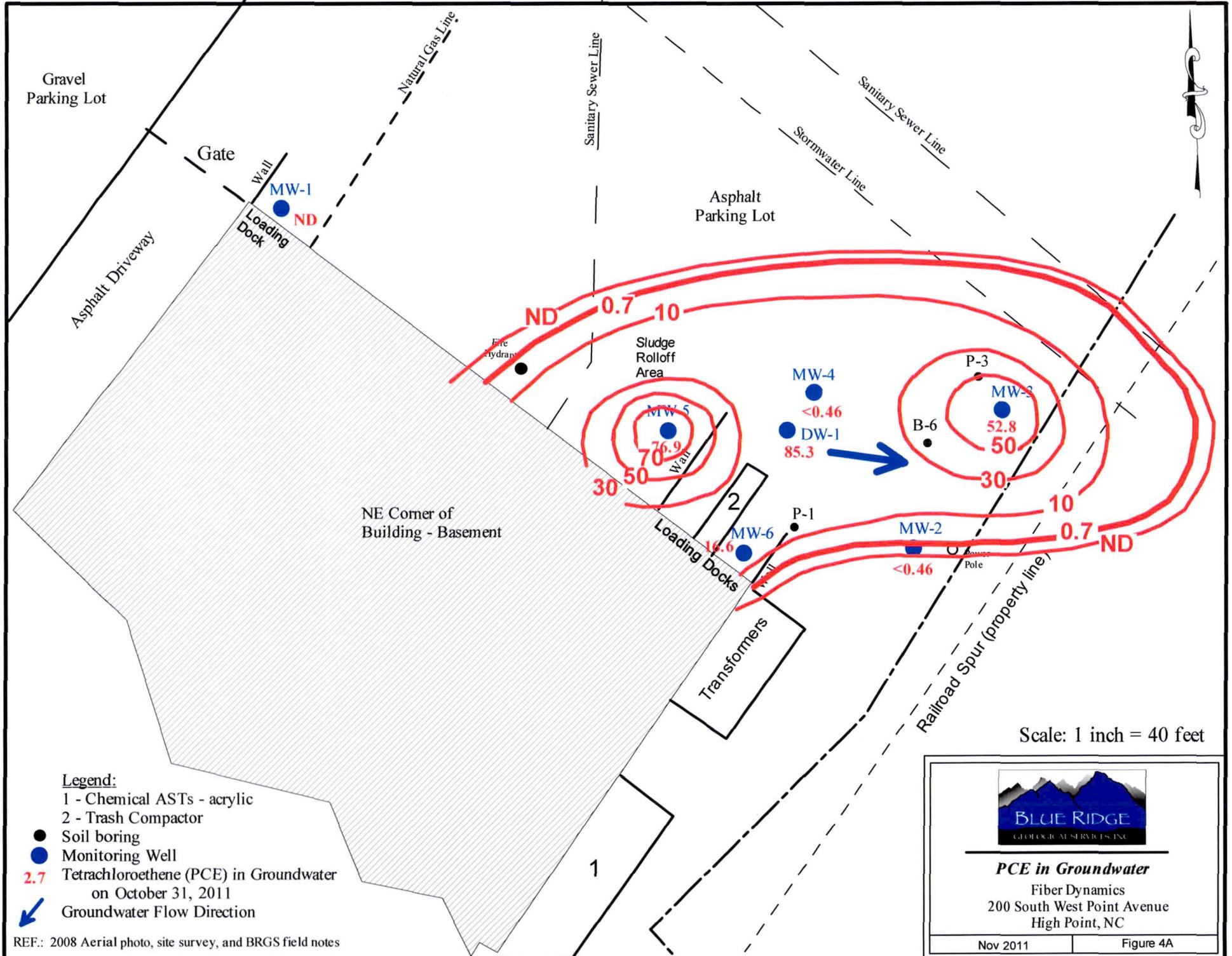
- 1 = Calvary Church of God of Prophecy
- 2 = Engineered Polymer Solutions, Inc.
- 3 = Vacant - Former Siceloff Oil and Coal
- R = Residences

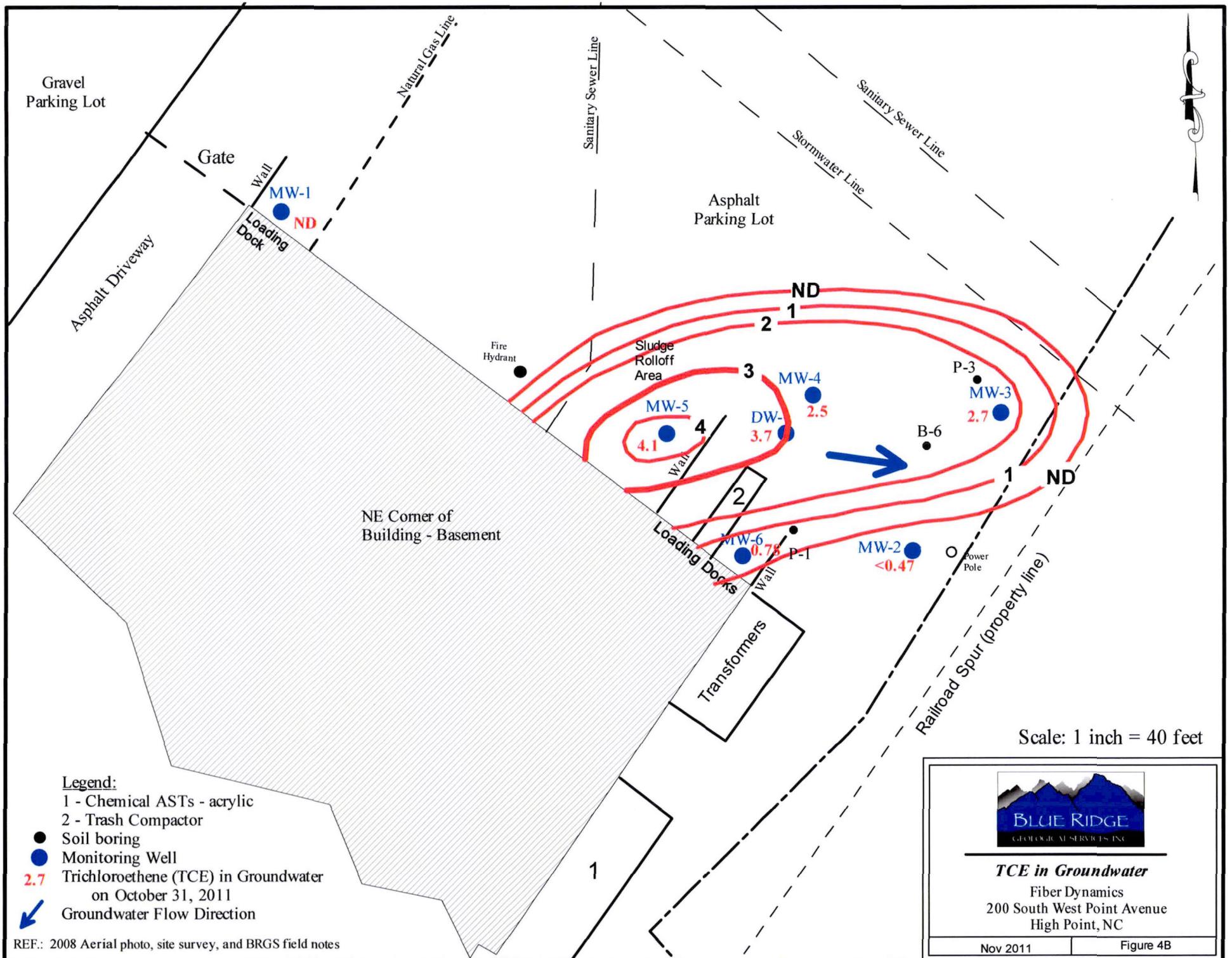
Scale: 1 inch = 170 feet

REF.: Guilford County NC GIS Website





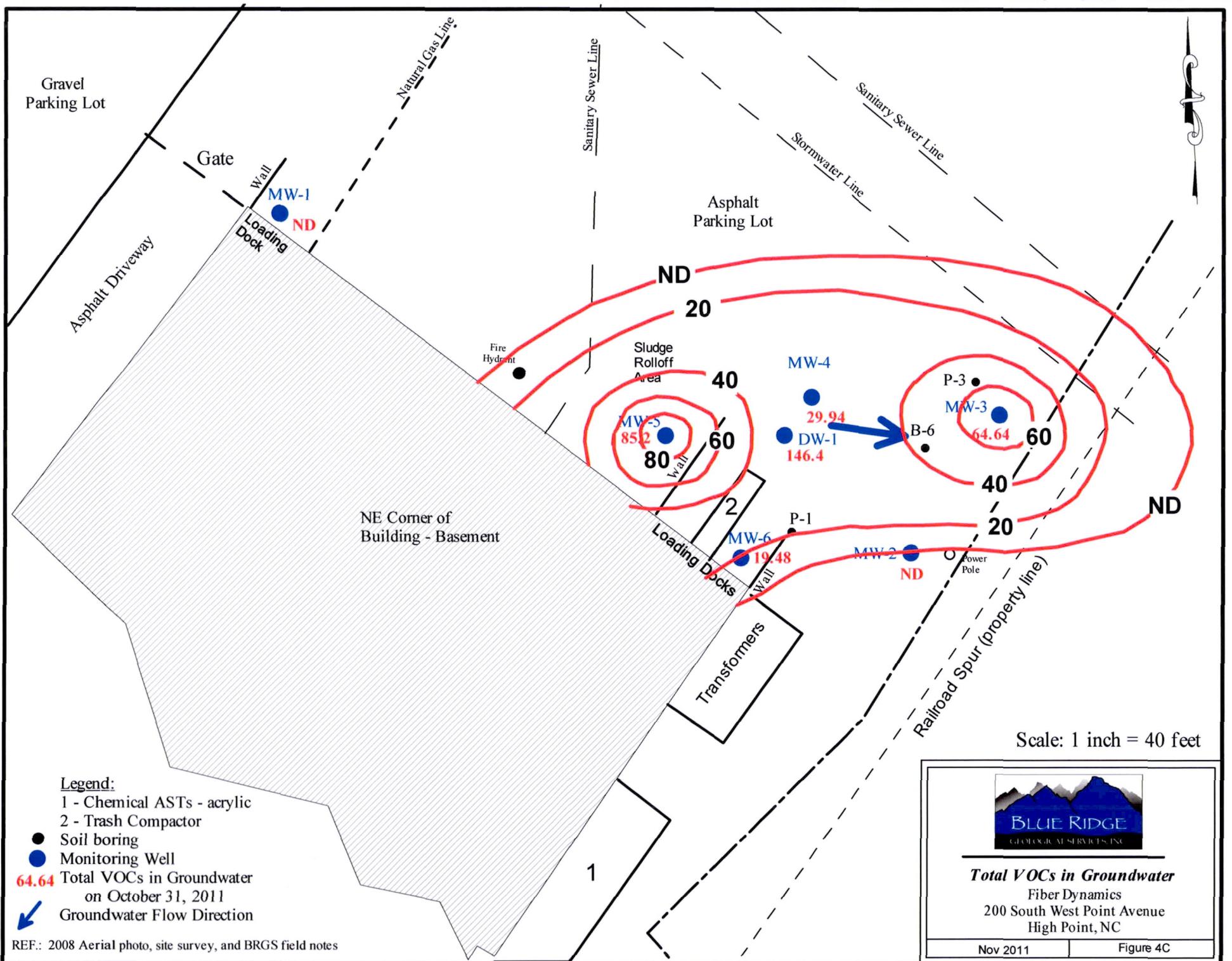




TCE in Groundwater
Fiber Dynamics
200 South West Point Avenue
High Point, NC

Nov 2011

Figure 4B



Total VOCs in Groundwater
Fiber Dynamics
200 South West Point Avenue
High Point, NC

Nov 2011

Figure 4C

**LABORATORY REPORTS AND
CHAIN OF CUSTODY FORMS**



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 21, 2011

Mr. Jeff Gerlock
Blue Ridge Geological Services
306 Eden Terrace
Suite C
Archdale, NC 27263

RE: Project: FIBER 2011
Pace Project No.: 92105550

Dear Mr. Gerlock:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Erin Waters

erin.waters@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 1 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
8800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: FIBER 2011
Pace Project No.: 92105550

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New Mexico Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: D9921
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Washington Certification #: C754
Wisconsin Certification #: 999407970

Charlotte Certification IDs

9800 Kinney Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213

Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87649
Massachusetts Certification #: M-NC020
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001
Virginia Certification #: 00072
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460147

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 2 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: FIBER 2011
Pace Project No.: 92105550

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92105550001	MW-1	Water	10/31/11 13:30	11/01/11 16:00
92105550002	MW-3	Water	10/31/11 14:30	11/01/11 16:00
92105550003	DW-1	Water	10/31/11 15:45	11/01/11 16:00
92105550004	MW-4	Water	10/31/11 15:15	11/01/11 16:00
92105550005	MW-2	Water	10/31/11 14:00	11/01/11 16:00
92105550006	MW-5	Water	10/31/11 15:00	11/01/11 16:00
92105550007	MW-6	Water	10/31/11 14:15	11/01/11 16:00
92105550008	DUPLICATE	Water	10/31/11 00:00	11/01/11 16:00

SAMPLE ANALYTE COUNT

Project: FIBER 2011
Pace Project No.: 92105550

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92105550001	MW-1	RSK 175	SK4	3	PASI-M
		EPA 6010	JMW	1	PASI-A
		EPA 8260	MCK	63	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	JDA	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
		RSK 175	SK4	3	PASI-M
		EPA 6010	JMW	1	PASI-A
		EPA 8260	MCK	63	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	JDA	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
		RSK 175	SK4	3	PASI-M
		EPA 6010	JMW	1	PASI-A
		EPA 8260	MCK	63	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	EWS	1	PASI-A
		EPA 300.0	SAJ	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	JDA	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	SAJ	1	PASI-A
		RSK 175	SK4	3	PASI-M

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 3 of 40

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 4 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: FIBER 2011
Pace Project No.: 92105550

Lab ID	Sample ID	Method	Analyst	Analytes Reported	Laboratory
		EPA 8260	MCK	63	PASI-C
		SM 5310B	SAJ	1	PASI-A
92105550005	MW-2	EPA 8260	MCK	63	PASI-C
92105550006	MW-5	EPA 8260	MCK	63	PASI-C
92105550007	MW-6	EPA 8260	MCK	63	PASI-C
92105550008	DUPLICATE	EPA 8260	MCK	63	PASI-C

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 5 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-1	Lab ID: 92105550001	Collected: 10/31/11 13:30	Received: 11/01/11 16:00	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND ug/L	10.0	5.0	1			11/04/11 13:40	74-84-0	
Ethene	ND ug/L	10.0	5.0	1			11/04/11 13:40	74-85-1	
Methane	64.4 ug/L	10.0	5.0	1			11/04/11 13:40	74-82-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Manganese	431 ug/L	5.0	2.5	1	11/03/11 11:55		11/04/11 16:56	7439-95-5	
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND ug/L	25.0	2.2	1			11/05/11 03:35	67-64-1	
Benzene	ND ug/L	1.0	0.25	1			11/05/11 03:35	71-43-2	
Bromobenzene	ND ug/L	1.0	0.30	1			11/05/11 03:35	108-86-1	
Bromochloromethane	ND ug/L	1.0	0.17	1			11/05/11 03:35	74-97-5	
Bromodichloromethane	ND ug/L	1.0	0.18	1			11/05/11 03:35	75-27-4	
Bromoform	ND ug/L	1.0	0.26	1			11/05/11 03:35	75-25-2	
Bromomethane	ND ug/L	2.0	0.29	1			11/05/11 03:35	74-83-9	
2-Butanone (MEK)	ND ug/L	5.0	0.96	1			11/05/11 03:35	78-93-3	
Carbon tetrachloride	ND ug/L	1.0	0.25	1			11/05/11 03:35	56-23-5	
Chlorobenzene	ND ug/L	1.0	0.23	1			11/05/11 03:35	108-90-7	
Chloroethane	ND ug/L	1.0	0.54	1			11/05/11 03:35	75-00-3	
Chloroform	ND ug/L	1.0	0.14	1			11/05/11 03:35	67-66-3	
Chloromethane	ND ug/L	1.0	0.11	1			11/05/11 03:35	74-87-3	
2-Chirotoluene	ND ug/L	1.0	0.35	1			11/05/11 03:35	95-49-8	
4-Chlorotoluene	ND ug/L	1.0	0.31	1			11/05/11 03:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1			11/05/11 03:35	96-12-8	
Dibromochloromethane	ND ug/L	1.0	0.21	1			11/05/11 03:35	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1			11/05/11 03:35	106-93-4	
Dibromomethane	ND ug/L	1.0	0.21	1			11/05/11 03:35	74-95-3	
1,2-Dichlorobenzene	ND ug/L	1.0	0.30	1			11/05/11 03:35	95-50-1	
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1			11/05/11 03:35	541-73-1	
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1			11/05/11 03:35	106-46-7	
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1			11/05/11 03:35	75-71-8	
1,1-Dichloroethane	ND ug/L	1.0	0.32	1			11/05/11 03:35	75-34-3	
1,2-Dichloroethane	ND ug/L	1.0	0.12	1			11/05/11 03:35	107-06-2	
1,1-Dichloroethene	ND ug/L	1.0	0.56	1			11/05/11 03:35	75-35-4	
cis-1,2-Dichloroethene	ND ug/L	1.0	0.19	1			11/05/11 03:35	156-59-2	
trans-1,2-Dichloroethene	ND ug/L	1.0	0.49	1			11/05/11 03:35	156-60-5	
1,2-Dichloropropane	ND ug/L	1.0	0.27	1			11/05/11 03:35	78-87-5	
1,3-Dichloropropane	ND ug/L	1.0	0.28	1			11/05/11 03:35	142-28-9	
2,2-Dichloropropane	ND ug/L	1.0	0.13	1			11/05/11 03:35	594-20-7	
1,1-Dichloropropene	ND ug/L	1.0	0.49	1			11/05/11 03:35	563-58-6	
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1			11/05/11 03:35	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1			11/05/11 03:35	10061-02-6	
Diisopropyl ether	ND ug/L	1.0	0.12	1			11/05/11 03:35	108-20-3	
Ethylbenzene	ND ug/L	1.0	0.30	1			11/05/11 03:35	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1			11/05/11 03:35	87-68-3	
2-Hexanone	ND ug/L	5.0	0.46	1			11/05/11 03:35	591-78-6	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 6 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-1 Lab ID: 92105550001 Collected: 10/31/11 13:30 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV Low Level										
	Analytical Method: EPA 8260									
p-Isopropyltoluene	ND ug/L		1.0	0.31	1		11/05/11 03:35	99-87-6		
Methylene Chloride	ND ug/L		2.0	0.97	1		11/05/11 03:35	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L		5.0	0.33	1		11/05/11 03:35	108-10-1		
Methyl-tert-butyl ether	ND ug/L		1.0	0.21	1		11/05/11 03:35	1634-04-4		
Naphthalene	ND ug/L		1.0	0.24	1		11/05/11 03:35	91-20-3		
Styrene	ND ug/L		1.0	0.26	1		11/05/11 03:35	100-42-5		
1,1,2-Tetrachloroethane	ND ug/L		1.0	0.33	1		11/05/11 03:35	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	0.40	1		11/05/11 03:35	79-34-5		
Tetrachloroethene	ND ug/L		1.0	0.46	1		11/05/11 03:35	127-18-4		
Toluene	ND ug/L		1.0	0.26	1		11/05/11 03:35	108-88-3		
1,2,3-Trichlorobenzene	ND ug/L		1.0	0.33	1		11/05/11 03:35	87-61-6		
1,2,4-Trichlorobenzene	ND ug/L		1.0	0.35	1		11/05/11 03:35	120-82-1		
1,1,1-Trichloroethane	ND ug/L		1.0	0.48	1		11/05/11 03:35	71-55-6		
1,1,2-Trichloroethane	ND ug/L		1.0	0.29	1		11/05/11 03:35	79-00-5		
Trichloroethene	ND ug/L		1.0	0.47	1		11/05/11 03:35	79-01-6		
Trichlorofluoromethane	ND ug/L		1.0	0.20	1		11/05/11 03:35	75-69-4		
1,2,3-Trichloropropane	ND ug/L		1.0	0.41	1		11/05/11 03:35	96-18-4		
Vinyl acetate	ND ug/L		2.0	0.35	1		11/05/11 03:35	108-05-4		
Vinyl chloride	ND ug/L		1.0	0.62	1		11/05/11 03:35	75-01-4		
m,p-Xylene	ND ug/L		2.0	0.66	1		11/05/11 03:35	179601-23-1		
o-Xylene	ND ug/L		1.0	0.23	1		11/05/11 03:35	95-47-6		
<i>Surrogates</i>										
4-Bromofluorobenzene (S)	94 %		70-130		1		11/05/11 03:35	460-00-4		
Dibromofluoromethane (S)	124 %		70-130		1		11/05/11 03:35	1868-53-7		
1,2-Dichloroethane-d4 (S)	123 %		70-130		1		11/05/11 03:35	17060-07-0		
Toluene-d8 (S)	98 %		70-130		1		11/05/11 03:35	2037-26-5		
2320B Alkalinity										
	Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	35.0 mg/L		5.0	5.0	1		11/10/11 10:55			
Iron, Ferrous	ND mg/L		0.50	0.50	1		Analytical Method: SM 3500-Fe D#4			
Iron, Ferrous	ND mg/L		0.50	0.50	1		11/08/11 12:58	H1,N2		
4500S2D Sulfide Water										
	Analytical Method: SM 4500-S2D									
Sulfide	ND mg/L		0.10	0.10	1		11/04/11 11:00	18496-25-8	M1	
5210B BOD, 5 day										
	Analytical Method: SM 5210B									
BOD, 5 day	ND mg/L		2.0	2.0	1	11/02/11 10:00	11/07/11 09:50			
300.0 IC Anions 28 Days										
	Analytical Method: EPA 300.0									
Sulfate	68.3 mg/L		25.0	25.0	5		11/03/11 14:15	14808-79-8		
353.2 Nitrogen, NO2/NO3 pres.										
	Analytical Method: EPA 353.2									
Nitrogen, NO2 plus NO3	2.1 mg/L		0.20	0.20	1		11/05/11 00:19			

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 7 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-1 Lab ID: 92105550001 Collected: 10/31/11 13:30 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride									
	Analytical Method: SM 4500-Cl-E								
Chloride	11.2 mg/L		5.0	5.0	1		11/07/11 16:01	16887-00-6	
5220D COD									
	Analytical Method: SM 5220D								
Chemical Oxygen Demand	ND mg/L		25.0	25.0	1		11/04/11 23:00		
5310B TOC									
	Analytical Method: SM 5310B								
Total Organic Carbon	4.6 mg/L		1.0	1.0	1		11/04/11 15:03	7440-44-0	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 8 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-3 Lab ID: 92105550002 Collected: 10/31/11 14:30 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace Analytical Method: RSK 175									
Ethane	ND ug/L	10.0	5.0	1			11/04/11 13:50	74-84-0	
Ethene	ND ug/L	10.0	5.0	1			11/04/11 13:50	74-85-1	
Methane	46.5 ug/L	10.0	5.0	1			11/04/11 13:50	74-82-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Manganese	759 ug/L	5.0	2.5	1	11/03/11 11:55	11/04/11 17:00	7439-96-5		
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND ug/L	25.0	2.2	1			11/05/11 04:01	67-64-1	
Benzene	ND ug/L	1.0	0.25	1			11/05/11 04:01	71-43-2	
Bromobenzene	ND ug/L	1.0	0.30	1			11/05/11 04:01	108-86-1	
Bromoform	ND ug/L	1.0	0.17	1			11/05/11 04:01	74-97-5	
Bromochloromethane	ND ug/L	1.0	0.18	1			11/05/11 04:01	75-27-4	
Bromodichloromethane	ND ug/L	1.0	0.26	1			11/05/11 04:01	75-25-2	
Bromomethane	ND ug/L	2.0	0.29	1			11/05/11 04:01	74-83-9	
2-Butanone (MEK)	ND ug/L	5.0	0.96	1			11/05/11 04:01	78-93-3	
Carbon tetrachloride	ND ug/L	1.0	0.25	1			11/05/11 04:01	56-23-5	
Chlorobenzene	1.6 ug/L	1.0	0.23	1			11/05/11 04:01	108-90-7	
Chloroethane	ND ug/L	1.0	0.54	1			11/05/11 04:01	75-00-3	
Chloroform	ND ug/L	1.0	0.14	1			11/05/11 04:01	67-66-3	
Chloromethane	ND ug/L	1.0	0.11	1			11/05/11 04:01	74-87-3	
2-Chlorotoluene	ND ug/L	1.0	0.35	1			11/05/11 04:01	95-49-8	
4-Chlorotoluene	ND ug/L	1.0	0.31	1			11/05/11 04:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1			11/05/11 04:01	96-12-8	
Dibromochloromethane	ND ug/L	1.0	0.21	1			11/05/11 04:01	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1			11/05/11 04:01	106-93-4	
Dibromomethane	ND ug/L	1.0	0.21	1			11/05/11 04:01	74-95-3	
1,2-Dichlorobenzene	1.1 ug/L	1.0	0.30	1			11/05/11 04:01	95-50-1	
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1			11/05/11 04:01	541-73-1	
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1			11/05/11 04:01	106-46-7	
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1			11/05/11 04:01	75-71-8	
1,1-Dichloroethane	0.38J ug/L	1.0	0.32	1			11/05/11 04:01	75-34-3	
1,2-Dichloroethane	ND ug/L	1.0	0.12	1			11/05/11 04:01	107-06-2	
1,1-Dichloroethene	ND ug/L	1.0	0.56	1			11/05/11 04:01	75-35-4	
cis-1,2-Dichloroethene	1.7 ug/L	1.0	0.19	1			11/05/11 04:01	156-59-2	
trans-1,2-Dichloroethene	ND ug/L	1.0	0.49	1			11/05/11 04:01	156-60-5	
1,2-Dichloropropane	ND ug/L	1.0	0.27	1			11/05/11 04:01	78-87-5	
1,3-Dichloropropane	ND ug/L	1.0	0.28	1			11/05/11 04:01	142-28-9	
2,2-Dichloropropane	ND ug/L	1.0	0.13	1			11/05/11 04:01	594-20-7	
1,1-Dichloropropene	ND ug/L	1.0	0.49	1			11/05/11 04:01	563-58-6	
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1			11/05/11 04:01	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1			11/05/11 04:01	10061-02-6	
Diisopropyl ether	ND ug/L	1.0	0.12	1			11/05/11 04:01	108-20-3	
Ethybenzene	ND ug/L	1.0	0.30	1			11/05/11 04:01	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1			11/05/11 04:01	87-68-3	
2-Hexanone	ND ug/L	5.0	0.46	1			11/05/11 04:01	591-78-6	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 9 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-3 Lab ID: 92105550002 Collected: 10/31/11 14:30 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Analytical Method: EPA 8260									
p-Isopropyltoluene	ND ug/L	1.0	0.31	1			11/05/11 04:01	99-87-6	
Methylene Chloride	ND ug/L	2.0	0.97	1			11/05/11 04:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L	5.0	0.33	1			11/05/11 04:01	108-10-1	
Methyl-tert-butyl ether	ND ug/L	1.0	0.21	1			11/05/11 04:01	1634-04-4	
Naphthalene	ND ug/L	1.0	0.24	1			11/05/11 04:01	91-20-3	
Styrene	ND ug/L	1.0	0.26	1			11/05/11 04:01	100-42-5	
1,1,2-Tetrachloroethane	ND ug/L	1.0	0.33	1			11/05/11 04:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	0.40	1			11/05/11 04:01	79-34-5	
Tetrachloroethene	52.8 ug/L	1.0	0.46	1			11/05/11 04:01	127-18-4	
Toluene	ND ug/L	1.0	0.26	1			11/05/11 04:01	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L	1.0	0.33	1			11/05/11 04:01	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L	1.0	0.35	1			11/05/11 04:01	120-82-1	
1,1,1-Trichloroethane	ND ug/L	1.0	0.48	1			11/05/11 04:01	71-55-6	
1,1,2-Trichloroethane	ND ug/L	1.0	0.29	1			11/05/11 04:01	79-00-5	
Trichloroethene	2.7 ug/L	1.0	0.47	1			11/05/11 04:01	79-01-6	
Trichlorofluoromethane	3.7 ug/L	1.0	0.20	1			11/05/11 04:01	75-69-4	
1,2,3-Trichloropropane	ND ug/L	1.0	0.41	1			11/05/11 04:01	96-18-4	
Vinyl acetate	ND ug/L	2.0	0.35	1			11/05/11 04:01	108-05-4	
Vinyl chloride	0.66J ug/L	1.0	0.62	1			11/05/11 04:01	75-01-4	
m,p-Xylene	ND ug/L	2.0	0.66	1			11/05/11 04:01	179601-23-1	
o-Xylene	ND ug/L	1.0	0.23	1			11/05/11 04:01	95-47-6	
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Total as CaCO ₃	155 mg/L	5.0	5.0	1			11/10/11 10:55		
Iron, Ferrous	ND mg/L	0.50	0.50	1			11/08/11 13:01		H1,N2
4500S2D Sulfide Water Analytical Method: SM 4500-S2D									
Sulfide	ND mg/L	0.10	0.10	1			11/04/11 11:00		18496-25-8
5210B BOD, 5 day Analytical Method: SM 5210B									
BOD, 5 day	ND mg/L	2.0	2.0	1	1	11/02/11 10:00		11/07/11 09:50	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	47.0 mg/L	10.0	10.0	2			11/03/11 14:55		14808-79-8
353.2 Nitrogen, NO₂/NO₃ pres. Analytical Method: EPA 353.2									
Nitrogen, NO ₂ plus NO ₃	1.8 mg/L	0.20	0.20	1			11/05/11 00:20		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 10 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample:	MW-3	Lab ID:	92105550002	Collected:	10/31/11 14:30	Received:	11/01/11 16:00	Matrix:	Water	
Parameters		Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride		Analytical Method: SM 4500-Cl-E								
Chloride		36.8 mg/L	5.0	5.0	1		11/07/11 16:01	16887-00-6		
5220D COD		Analytical Method: SM 5220D								
Chemical Oxygen Demand		28.0 mg/L	25.0	25.0	1		11/04/11 23:00			
5310B TOC		Analytical Method: SM 5310B								
Total Organic Carbon		6.4 mg/L	2.0	2.0	2		11/07/11 09:50	7440-44-0		



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample:	DW-1	Lab ID:	92105550003	Collected:	10/31/11 15:45	Received:	11/01/11 16:00	Matrix:	Water	
Parameters		Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175								
Ethane		ND ug/L	10.0	5.0	1		11/04/11 14:01	74-84-0		
Ethene		15.3 ug/L	10.0	5.0	1		11/04/11 14:01	74-85-1		
Methane		3470 ug/L	10.0	5.0	1		11/04/11 14:01	74-82-8		
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Manganese		301 ug/L	5.0	2.5	1	11/03/11 11:55	11/04/11 17:04	7439-96-5		
8260 MSV Low Level		Analytical Method: EPA 8260								
Acetone		ND ug/L	25.0	2.2	1		11/05/11 04:51	67-64-1		
Benzene		ND ug/L	1.0	0.25	1		11/05/11 04:51	71-43-2		
Bromobenzene		ND ug/L	1.0	0.30	1		11/05/11 04:51	108-86-1		
Bromochloromethane		ND ug/L	1.0	0.17	1		11/05/11 04:51	74-97-5		
Bromodichloromethane		ND ug/L	1.0	0.18	1		11/05/11 04:51	75-27-4		
Bromotform		ND ug/L	1.0	0.26	1		11/05/11 04:51	75-25-2		
Bromomethane		ND ug/L	2.0	0.29	1		11/05/11 04:51	74-83-9		
2-Butanone (MEK)		ND ug/L	5.0	0.96	1		11/05/11 04:51	78-93-3		
Carbon tetrachloride		ND ug/L	1.0	0.25	1		11/05/11 04:51	56-23-5		
Chlorobenzene		0.46J ug/L	1.0	0.23	1		11/05/11 04:51	108-90-7		
Chloroethane		ND ug/L	1.0	0.54	1		11/05/11 04:51	75-00-3		
Chloroform		ND ug/L	1.0	0.14	1		11/05/11 04:51	67-66-3		
Chloromethane		ND ug/L	1.0	0.11	1		11/05/11 04:51	74-87-3		
2-Chirotoluene		ND ug/L	1.0	0.35	1		11/05/11 04:51	95-49-8		
4-Chirotoluene		ND ug/L	1.0	0.31	1		11/05/11 04:51	106-43-4		
1,2-Dibromo-3-chloropropane		ND ug/L	5.0	2.5	1		11/05/11 04:51	96-12-8		
Dibromochloromethane		ND ug/L	1.0	0.21	1		11/05/11 04:51	124-48-1		
1,2-Dibromoethane (EDB)		ND ug/L	1.0	0.27	1		11/05/11 04:51	106-93-4		
Dibromomethane		ND ug/L	1.0	0.21	1		11/05/11 04:51	74-95-3		
1,2-Dichlorobenzene		0.44J ug/L	1.0	0.30	1		11/05/11 04:51	95-50-1		
1,3-Dichlorobenzene		ND ug/L	1.0	0.24	1		11/05/11 04:51	541-73-1		
1,4-Dichlorobenzene		ND ug/L	1.0	0.33	1		11/05/11 04:51	106-46-7		
Dichlorodifluoromethane		ND ug/L	1.0	0.21	1		11/05/11 04:51	75-71-8		
1,1-Dichloroethane		ND ug/L	1.0	0.32	1		11/05/11 04:51	75-34-3		
1,2-Dichloroethane		ND ug/L	1.0	0.12	1		11/05/11 04:51	107-06-2		
1,1-Dichloroethene		ND ug/L	1.0	0.56	1		11/05/11 04:51	75-35-4		
cis-1,2-Dichloroethene		3.1 ug/L	1.0	0.19	1		11/05/11 04:51	156-59-2		
trans-1,2-Dichloroethene		ND ug/L	1.0	0.49	1		11/05/11 04:51	156-60-5		
1,2-Dichloropropane		ND ug/L	1.0	0.27	1		11/05/11 04:51	78-87-5		
1,3-Dichloropropane		ND ug/L	1.0	0.28	1		11/05/11 04:51	142-28-9		
2,2-Dichloropropane		ND ug/L	1.0	0.13	1		11/05/11 04:51	594-20-7		
1,1-Dichloropropene		ND ug/L	1.0	0.49	1		11/05/11 04:51	563-58-6		
cis-1,3-Dichloropropene		ND ug/L	1.0	0.13	1		11/05/11 04:51	10061-01-5		
trans-1,3-Dichloropropene		ND ug/L	1.0	0.26	1		11/05/11 04:51	10061-02-6		
Diisopropyl ether		ND ug/L	1.0	0.12	1		11/05/11 04:51	108-20-3		
Ethylbenzene		ND ug/L	1.0	0.30	1		11/05/11 04:51	100-41-4		
Hexachloro-1,3-butadiene		ND ug/L	1.0	0.71	1		11/05/11 04:51	87-68-3		
2-Hexanone		ND ug/L	5.0	0.46	1		11/05/11 04:51	591-78-6		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 11 of 40

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 12 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: DW-1 Lab ID: 92105550003 Collected: 10/31/11 15:45 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
p-Isopropyltoluene	ND ug/L		1.0	0.31	1		11/05/11 04:51	99-87-6	
Methylene Chloride	ND ug/L		2.0	0.97	1		11/05/11 04:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	21.8 ug/L		5.0	0.33	1		11/05/11 04:51	108-10-1	
Methyl-tert-butyl ether	ND ug/L		1.0	0.21	1		11/05/11 04:51	1634-04-4	
Naphthalene	ND ug/L		1.0	0.24	1		11/05/11 04:51	91-20-3	
Styrene	ND ug/L		1.0	0.26	1		11/05/11 04:51	100-42-5	
1,1,2-Tetrachloroethane	ND ug/L		1.0	0.33	1		11/05/11 04:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	0.40	1		11/05/11 04:51	79-34-5	
Tetrachloroethene	85.3 ug/L		1.0	0.46	1		11/05/11 04:51	127-18-4	
Toluene	0.411 ug/L		1.0	0.26	1		11/05/11 04:51	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		1.0	0.33	1		11/05/11 04:51	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		1.0	0.35	1		11/05/11 04:51	120-82-1	
1,1,1-Trichloroethane	ND ug/L		1.0	0.48	1		11/05/11 04:51	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	0.29	1		11/05/11 04:51	79-00-5	
Trichloroethene	3.7 ug/L		1.0	0.47	1		11/05/11 04:51	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	0.20	1		11/05/11 04:51	75-69-4	
1,2,3-Trichloropropane	ND ug/L		1.0	0.41	1		11/05/11 04:51	96-18-4	
Vinyl acetate	ND ug/L		2.0	0.35	1		11/05/11 04:51	108-05-4	
Vinyl chloride	ND ug/L		1.0	0.62	1		11/05/11 04:51	75-01-4	
m&p-Xylene	ND ug/L		2.0	0.66	1		11/05/11 04:51	179601-23-1	
o-Xylene	ND ug/L		1.0	0.23	1		11/05/11 04:51	95-47-6	
<i>Surrogates</i>									
4-Bromofluorobenzene (S)	90 %		70-130		1		11/05/11 04:51	460-00-4	
Dibromofluoromethane (S)	125 %		70-130		1		11/05/11 04:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	122 %		70-130		1		11/05/11 04:51	17060-07-0	
Toluene-d8 (S)	99 %		70-130		1		11/05/11 04:51	2037-26-5	
2320B Alkalinity									
Alkalinity, Total as CaCO3	165 mg/L		5.0	5.0	1		11/10/11 10:55		
Iron, Ferrous									
Iron, Ferrous	ND mg/L		0.50	0.50	1		11/08/11 13:03	H1,N2	
4500S2D Sulfide Water									
Sulfide	6.3 mg/L		2.5	2.5	1		11/04/11 11:00	18496-25-8	
5210B BOD, 5 day									
BOD, 5 day	ND mg/L		2.0	2.0	1	11/02/11 10:00	11/07/11 09:50		
300.0 IC Anions 28 Days									
Sulfate	37.0 mg/L		5.0	5.0	1		11/02/11 15:34	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.									
Nitrogen, NO2 plus NO3	0.64 mg/L		0.20	0.20	1		11/05/11 00:21		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 13 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: DW-1 Lab ID: 92105550003 Collected: 10/31/11 15:45 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride									
Chloride	26.7 mg/L		5.0	5.0	1		11/07/11 16:02	16887-00-6	
5220D COD									
Chemical Oxygen Demand	40.0 mg/L		25.0	25.0	1		11/04/11 23:00		
5310B TOC									
Total Organic Carbon	8.9 mg/L		1.0	1.0	1		11/04/11 15:29	7440-44-0	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 14 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-4	Lab ID: 92105550004	Collected: 10/31/11 15:15	Received: 11/01/11 16:00	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175							
Ethane	ND ug/L	10.0	5.0	1		11/04/11 14:12	74-84-0		
Ethene	ND ug/L	10.0	5.0	1		11/04/11 14:12	74-85-1		
Methane	984 ug/L	10.0	5.0	1		11/04/11 14:12	74-82-8		
8260 MSV Low Level		Analytical Method: EPA 8260							
Acetone	ND ug/L	25.0	2.2	1		11/05/11 02:44	67-64-1		
Benzene	0.49J ug/L	1.0	0.25	1		11/05/11 02:44	71-43-2		
Bromobenzene	ND ug/L	1.0	0.30	1		11/05/11 02:44	108-65-1		
Bromoform	ND ug/L	1.0	0.17	1		11/05/11 02:44	74-97-5		
Bromochloromethane	ND ug/L	1.0	0.18	1		11/05/11 02:44	75-27-4		
Bromodichloromethane	ND ug/L	1.0	0.26	1		11/05/11 02:44	75-25-2		
Bromomethane	ND ug/L	2.0	0.29	1		11/05/11 02:44	74-83-9		
2-Butanone (MEK)	ND ug/L	5.0	0.96	1		11/05/11 02:44	78-93-3		
Carbon tetrachloride	ND ug/L	1.0	0.25	1		11/05/11 02:44	56-23-5		
Chlorobenzene	0.75J ug/L	1.0	0.23	1		11/05/11 02:44	108-90-7		
Chloroethane	1.9 ug/L	1.0	0.54	1		11/05/11 02:44	75-00-3		
Chloroform	ND ug/L	1.0	0.14	1		11/05/11 02:44	67-66-3		
Chloromethane	ND ug/L	1.0	0.11	1		11/05/11 02:44	74-87-3		
2-Chlorotoluene	ND ug/L	1.0	0.35	1		11/05/11 02:44	95-49-8		
4-Chlorotoluene	ND ug/L	1.0	0.31	1		11/05/11 02:44	106-43-4		
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1		11/05/11 02:44	96-12-8		
Dibromochloromethane	ND ug/L	1.0	0.21	1		11/05/11 02:44	124-61-1		
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1		11/05/11 02:44	106-93-4		
Dibromomethane	ND ug/L	1.0	0.21	1		11/05/11 02:44	74-95-3		
1,2-Dichlorobenzene	0.65J ug/L	1.0	0.30	1		11/05/11 02:44	95-50-1		
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1		11/05/11 02:44	541-73-1		
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 02:44	106-46-7		
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1		11/05/11 02:44	75-71-8		
1,1-Dichloroethane	ND ug/L	1.0	0.32	1		11/05/11 02:44	75-34-3		
1,2-Dichloroethane	ND ug/L	1.0	0.12	1		11/05/11 02:44	107-06-2		
1,1-Dichloroethene	ND ug/L	1.0	0.56	1		11/05/11 02:44	75-35-4		
cis-1,2-Dichloroethene	10.4 ug/L	1.0	0.19	1		11/05/11 02:44	156-59-2		
trans-1,2-Dichloroethene	0.87J ug/L	1.0	0.49	1		11/05/11 02:44	156-60-5		
1,2-Dichloropropane	ND ug/L	1.0	0.27	1		11/05/11 02:44	78-87-5		
1,3-Dichloropropane	ND ug/L	1.0	0.28	1		11/05/11 02:44	142-28-9		
2,2-Dichloropropane	ND ug/L	1.0	0.13	1		11/05/11 02:44	594-20-7		
1,1-Dichloropropene	ND ug/L	1.0	0.49	1		11/05/11 02:44	563-58-6		
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1		11/05/11 02:44	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1		11/05/11 02:44	10061-02-6		
Diisopropyl ether	ND ug/L	1.0	0.12	1		11/05/11 02:44	108-20-3		
Ethylbenzene	ND ug/L	1.0	0.30	1		11/05/11 02:44	100-41-4		
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1		11/05/11 02:44	87-68-3		
2-Hexanone	ND ug/L	5.0	0.46	1		11/05/11 02:44	591-78-6		
p-Isopropyltoluene	ND ug/L	1.0	0.31	1		11/05/11 02:44	99-87-6		
Methylene Chloride	ND ug/L	2.0	0.97	1		11/05/11 02:44	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	5.0	0.33	1		11/05/11 02:44	108-10-1		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 15 of 40

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-4	Lab ID: 92105550004	Collected: 10/31/11 15:15	Received: 11/01/11 16:00	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level		Analytical Method: EPA 8260							
Methyl-tert-butyl ether	ND ug/L	1.0	0.21	1		11/05/11 02:44	1634-04-4		
Naphthalene	ND ug/L	1.0	0.24	1		11/05/11 02:44	91-20-3		
Styrene	ND ug/L	1.0	0.26	1		11/05/11 02:44	100-42-5		
1,1,2-Tetrachloroethane	ND ug/L	1.0	0.33	1		11/05/11 02:44	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	0.40	1		11/05/11 02:44	79-34-5		
Tetrachloroethene	ND ug/L	1.0	0.45	1		11/05/11 02:44	127-18-4		
Toluene	0.30J ug/L	1.0	0.26	1		11/05/11 02:44	108-88-3		
1,2,3-Trichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 02:44	87-61-6		
1,2,4-Trichlorobenzene	ND ug/L	1.0	0.35	1		11/05/11 02:44	120-82-1		
1,1,1-Trichloroethane	ND ug/L	1.0	0.48	1		11/05/11 02:44	71-55-6		
1,1,2-Trichloroethane	ND ug/L	1.0	0.29	1		11/05/11 02:44	79-00-5		
Trichloroethene	2.5 ug/L	1.0	0.47	1		11/05/11 02:44	79-01-6		
Trichlorofluoromethane	ND ug/L	1.0	0.20	1		11/05/11 02:44	75-69-4		
1,2,3-Trichloropropane	ND ug/L	1.0	0.41	1		11/05/11 02:44	98-18-4		
Vinyl acetate	ND ug/L	2.0	0.35	1		11/05/11 02:44	108-05-4		
Vinyl chloride	6.8 ug/L	1.0	0.62	1		11/05/11 02:44	75-01-4		
m&p-Xylene	ND ug/L	2.0	0.66	1		11/05/11 02:44	179601-23-1		
o-Xylene	ND ug/L	1.0	0.23	1		11/05/11 02:44	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	94 %		70-130						
Dibromofluoromethane (S)	125 %		70-130						
1,2-Dichloroethane-d4 (S)	123 %		70-130						
Toluene-d8 (S)	98 %		70-130						
5310B TOC		Analytical Method: SM 5310B							
Total Organic Carbon	12.1 mg/L		1.0	1.0	1				

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 16 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-2 Lab ID: 92105550005 Collected: 10/31/11 14:00 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
	Analytical Method: EPA 8260								
Acetone	ND ug/L	25.0	2.2	1		11/05/11 01:28	67-64-1		
Benzene	ND ug/L	1.0	0.25	1		11/05/11 01:28	71-43-2		
Bromobenzene	ND ug/L	1.0	0.30	1		11/05/11 01:28	108-66-1		
Bromoform	ND ug/L	1.0	0.17	1		11/05/11 01:28	74-97-5		
Bromodichloromethane	ND ug/L	1.0	0.18	1		11/05/11 01:28	75-27-4		
Bromochloromethane	ND ug/L	1.0	0.25	1		11/05/11 01:28	75-25-2		
Bromomethane	ND ug/L	2.0	0.29	1		11/05/11 01:28	74-83-9		
2-Butanone (MEK)	ND ug/L	5.0	0.96	1		11/05/11 01:28	78-93-3		
Carbon tetrachloride	ND ug/L	1.0	0.25	1		11/05/11 01:28	56-23-5		
Chlorobenzene	ND ug/L	1.0	0.23	1		11/05/11 01:28	108-90-7		
Chloroethane	ND ug/L	1.0	0.54	1		11/05/11 01:28	75-00-3		
Chloroform	ND ug/L	1.0	0.14	1		11/05/11 01:28	57-66-3		
Chloromethane	ND ug/L	1.0	0.11	1		11/05/11 01:28	74-87-3		
2-Chlorotoluene	ND ug/L	1.0	0.35	1		11/05/11 01:28	95-49-8		
4-Chlorotoluene	ND ug/L	1.0	0.31	1		11/05/11 01:28	106-43-4		
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1		11/05/11 01:28	95-12-8		
Dibromochloromethane	ND ug/L	1.0	0.21	1		11/05/11 01:28	124-48-1		
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1		11/05/11 01:28	106-93-4		
Dibromomethane	ND ug/L	1.0	0.21	1		11/05/11 01:28	74-95-3		
1,2-Dichlorobenzene	ND ug/L	1.0	0.30	1		11/05/11 01:28	95-50-1		
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1		11/05/11 01:28	541-73-1		
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 01:28	106-46-7		
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1		11/05/11 01:28	75-71-8		
1,1-Dichloroethane	ND ug/L	1.0	0.32	1		11/05/11 01:28	75-34-3		
1,2-Dichloroethane	ND ug/L	1.0	0.12	1		11/05/11 01:28	107-06-2		
1,1-Dichloroethene	ND ug/L	1.0	0.56	1		11/05/11 01:28	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	1.0	0.19	1		11/05/11 01:28	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	1.0	0.49	1		11/05/11 01:28	156-60-5		
1,2-Dichloropropane	ND ug/L	1.0	0.27	1		11/05/11 01:28	78-87-5		
1,3-Dichloropropane	ND ug/L	1.0	0.28	1		11/05/11 01:28	142-28-9		
2,2-Dichloropropane	ND ug/L	1.0	0.13	1		11/05/11 01:28	594-20-7		
1,1-Dichloropropene	ND ug/L	1.0	0.49	1		11/05/11 01:28	553-58-6		
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1		11/05/11 01:28	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1		11/05/11 01:28	10061-02-6		
Diisopropyl ether	ND ug/L	1.0	0.12	1		11/05/11 01:28	108-20-3		
Ethylbenzene	ND ug/L	1.0	0.30	1		11/05/11 01:28	100-41-4		
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1		11/05/11 01:28	87-68-3		
2-Hexanone	ND ug/L	5.0	0.46	1		11/05/11 01:28	591-78-6		
p-Isopropyltoluene	ND ug/L	1.0	0.31	1		11/05/11 01:28	99-87-6		
Methylene Chloride	ND ug/L	2.0	0.97	1		11/05/11 01:28	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	5.0	0.33	1		11/05/11 01:28	108-10-1		
Methyl- <i>tert</i> -butyl ether	ND ug/L	1.0	0.21	1		11/05/11 01:28	1634-04-4		
Naphthalene	ND ug/L	1.0	0.24	1		11/05/11 01:28	91-20-3		
Styrene	ND ug/L	1.0	0.26	1		11/05/11 01:28	100-42-5		
1,1,2-Tetrachloroethane	ND ug/L	1.0	0.33	1		11/05/11 01:28	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	0.40	1		11/05/11 01:28	79-34-5		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 17 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-2 Lab ID: 92105550005 Collected: 10/31/11 14:00 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
	Analytical Method: EPA 8260								
Tetrachloroethene	ND ug/L	1.0	0.46	1		11/05/11 01:28	127-18-4		
Toluene	ND ug/L	1.0	0.26	1		11/05/11 01:28	108-88-3		
1,2,3-Trichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 01:28	87-61-6		
1,2,4-Trichlorobenzene	ND ug/L	1.0	0.35	1		11/05/11 01:28	120-82-1		
1,1,1-Trichloroethane	ND ug/L	1.0	0.48	1		11/05/11 01:28	71-55-6		
1,1,2-Trichloroethane	ND ug/L	1.0	0.29	1		11/05/11 01:28	79-00-5		
Trichloroethene	ND ug/L	1.0	0.47	1		11/05/11 01:28	79-01-6		
Trichlorofluoromethane	ND ug/L	1.0	0.20	1		11/05/11 01:28	75-69-4		
1,2,3-Trichloropropane	ND ug/L	1.0	0.41	1		11/05/11 01:28	96-18-4		
Vinyl acetate	ND ug/L	2.0	0.35	1		11/05/11 01:28	108-05-4		
Vinyl chloride	ND ug/L	1.0	0.62	1		11/05/11 01:28	75-01-4		
m,p-Xylene	ND ug/L	2.0	0.66	1		11/05/11 01:28	1795601-23-1		
o-Xylene	ND ug/L	1.0	0.23	1		11/05/11 01:28	95-47-6		
<i>Surrogates</i>									
4-Bromofluorobenzene (S)	95 %		70-130		1		11/05/11 01:28	460-00-4	
Dibromofluoromethane (S)	125 %		70-130		1		11/05/11 01:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	121 %		70-130		1		11/05/11 01:28	17060-07-0	
Toluene-d8 (S)	97 %		70-130		1		11/05/11 01:28	2037-26-5	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 18 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-5 Lab ID: 92105550006 Collected: 10/31/11 15:00 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
Acetone	ND ug/L	25.0	2.2	1		11/05/11 01:54	67-64-1		
Benzene	ND ug/L	1.0	0.25	1		11/05/11 01:54	71-43-2		
Bromobenzene	ND ug/L	1.0	0.30	1		11/05/11 01:54	108-66-1		
Bromoform	ND ug/L	1.0	0.17	1		11/05/11 01:54	74-97-5		
Bromochloromethane	ND ug/L	1.0	0.18	1		11/05/11 01:54	75-27-4		
Bromomethane	ND ug/L	1.0	0.26	1		11/05/11 01:54	75-25-2		
2-Butanone (MEK)	ND ug/L	5.0	0.96	1		11/05/11 01:54	74-83-9		
Carbon tetrachloride	ND ug/L	1.0	0.25	1		11/05/11 01:54	56-23-5		
Chlorobenzene	1.0 ug/L	1.0	0.23	1		11/05/11 01:54	108-90-7		
Chloroethane	ND ug/L	1.0	0.54	1		11/05/11 01:54	75-00-3		
Chloroform	ND ug/L	1.0	0.14	1		11/05/11 01:54	67-66-3		
Chloromethane	ND ug/L	1.0	0.11	1		11/05/11 01:54	74-87-3		
2-Chlorotoluene	ND ug/L	1.0	0.35	1		11/05/11 01:54	95-49-8		
4-Chlorotoluene	ND ug/L	1.0	0.31	1		11/05/11 01:54	106-43-4		
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1		11/05/11 01:54	96-12-8		
Dibromochloromethane	ND ug/L	1.0	0.21	1		11/05/11 01:54	124-48-1		
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1		11/05/11 01:54	106-93-4		
Dibromomethane	ND ug/L	1.0	0.21	1		11/05/11 01:54	74-95-3		
1,2-Dichlorobenzene	1.1 ug/L	1.0	0.30	1		11/05/11 01:54	95-50-1		
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1		11/05/11 01:54	541-73-1		
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 01:54	106-46-7		
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1		11/05/11 01:54	75-71-8		
1,1-Dichloroethane	ND ug/L	1.0	0.32	1		11/05/11 01:54	75-34-3		
1,2-Dichloroethane	ND ug/L	1.0	0.12	1		11/05/11 01:54	107-06-2		
1,1-Dichloroethene	ND ug/L	1.0	0.56	1		11/05/11 01:54	75-35-4		
cis-1,2-Dichloroethene	2.1 ug/L	1.0	0.19	1		11/05/11 01:54	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	1.0	0.49	1		11/05/11 01:54	156-60-5		
1,2-Dichloropropane	ND ug/L	1.0	0.27	1		11/05/11 01:54	78-87-5		
1,3-Dichloropropane	ND ug/L	1.0	0.28	1		11/05/11 01:54	142-28-9		
2,2-Dichloropropane	ND ug/L	1.0	0.13	1		11/05/11 01:54	594-20-7		
1,1-Dichloropropene	ND ug/L	1.0	0.49	1		11/05/11 01:54	563-58-6		
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1		11/05/11 01:54	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1		11/05/11 01:54	10061-02-6		
Diisopropyl ether	ND ug/L	1.0	0.12	1		11/05/11 01:54	108-20-3		
Ethylbenzene	ND ug/L	1.0	0.30	1		11/05/11 01:54	100-41-4		
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1		11/05/11 01:54	87-68-3		
2-Hexanone	ND ug/L	5.0	0.46	1		11/05/11 01:54	591-78-6		
p-Isopropyltoluene	ND ug/L	1.0	0.31	1		11/05/11 01:54	99-87-6		
Methylene Chloride	ND ug/L	2.0	0.97	1		11/05/11 01:54	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	5.0	0.33	1		11/05/11 01:54	108-10-1		
Methyl-tert-butyl ether	ND ug/L	1.0	0.21	1		11/05/11 01:54	1634-04-4		
Naphthalene	ND ug/L	1.0	0.24	1		11/05/11 01:54	91-20-3		
Styrene	ND ug/L	1.0	0.26	1		11/05/11 01:54	100-42-5		
1,1,2-Tetrachloroethane	ND ug/L	1.0	0.33	1		11/05/11 01:54	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	0.40	1		11/05/11 01:54	79-34-5		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 19 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-5 Lab ID: 92105550006 Collected: 10/31/11 15:00 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
Tetrachloroethene	76.9 ug/L		1.0	0.46	1		11/05/11 01:54	127-18-4	
Toluene	ND ug/L		1.0	0.26	1		11/05/11 01:54	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		1.0	0.33	1		11/05/11 01:54	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		1.0	0.35	1		11/05/11 01:54	120-82-1	
1,1,1-Trichloroethane	ND ug/L		1.0	0.48	1		11/05/11 01:54	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	0.29	1		11/05/11 01:54	79-00-5	
Trichloroethene	4.1 ug/L		1.0	0.47	1		11/05/11 01:54	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	0.20	1		11/05/11 01:54	75-69-4	
1,2,3-Trichloropropane	ND ug/L		1.0	0.41	1		11/05/11 01:54	96-18-4	
Vinyl acetate	ND ug/L		2.0	0.35	1		11/05/11 01:54	108-05-4	
Vinyl chloride	ND ug/L		1.0	0.62	1		11/05/11 01:54	75-01-4	
m,p-Xylene	ND ug/L		2.0	0.66	1		11/05/11 01:54	179601-23-1	
o-Xylene	ND ug/L		1.0	0.23	1		11/05/11 01:54	95-47-6	
<i>Surrogates</i>									
4-Bromofluorobenzene (S)	91 %		70-130		1		11/05/11 01:54	460-00-4	
Dibromofluoromethane (S)	126 %		70-130		1		11/05/11 01:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	123 %		70-130		1		11/05/11 01:54	17060-07-0	
Toluene-d8 (S)	96 %		70-130		1		11/05/11 01:54	2037-26-5	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 20 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7178

Pace Analytical Services, Inc.
9800 Kinney Ave., Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-6 Lab ID: 92105550007 Collected: 10/31/11 14:15 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
	Analytical Method: EPA 8260								
Acetone	ND ug/L	25.0	2.2	1		11/05/11 02:19	67-64-1		
Benzene	ND ug/L	1.0	0.25	1		11/05/11 02:19	71-43-2		
Bromobenzene	ND ug/L	1.0	0.30	1		11/05/11 02:19	108-66-1		
Bromochloromethane	ND ug/L	1.0	0.17	1		11/05/11 02:19	74-97-5		
Bromodichloromethane	ND ug/L	1.0	0.18	1		11/05/11 02:19	75-27-4		
Bromoform	ND ug/L	1.0	0.26	1		11/05/11 02:19	75-25-2		
Bromomethane	ND ug/L	2.0	0.29	1		11/05/11 02:19	74-83-9		
2-Butanone (MEK)	ND ug/L	5.0	0.96	1		11/05/11 02:19	78-93-3		
Carbon tetrachloride	ND ug/L	1.0	0.25	1		11/05/11 02:19	56-23-5		
Chlorobenzene	0.25J ug/L	1.0	0.23	1		11/05/11 02:19	108-90-7		
Chloroethane	ND ug/L	1.0	0.54	1		11/05/11 02:19	75-00-3		
Chloroform	ND ug/L	1.0	0.14	1		11/05/11 02:19	67-66-3		
Chloromethane	0.17J ug/L	1.0	0.11	1		11/05/11 02:19	74-87-3		
2-Chirotoluene	ND ug/L	1.0	0.35	1		11/05/11 02:19	95-49-8		
4-Chlorotoluene	ND ug/L	1.0	0.31	1		11/05/11 02:19	106-43-4		
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1		11/05/11 02:19	96-12-6		
Dibromochloromethane	ND ug/L	1.0	0.21	1		11/05/11 02:19	124-48-1		
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1		11/05/11 02:19	106-93-4		
Dibromomethane	ND ug/L	1.0	0.21	1		11/05/11 02:19	74-95-3		
1,2-Dichlorobenzene	ND ug/L	1.0	0.30	1		11/05/11 02:19	95-50-1		
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1		11/05/11 02:19	541-73-1		
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 02:19	106-46-7		
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1		11/05/11 02:19	75-71-8		
1,1-Dichloroethane	0.61J ug/L	1.0	0.32	1		11/05/11 02:19	75-34-3		
1,2-Dichloroethane	ND ug/L	1.0	0.12	1		11/05/11 02:19	107-06-2		
1,1-Dichloroethene	ND ug/L	1.0	0.56	1		11/05/11 02:19	75-35-4		
cis-1,2-Dichloroethene	0.49J ug/L	1.0	0.19	1		11/05/11 02:19	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	1.0	0.49	1		11/05/11 02:19	156-60-5		
1,2-Dichloropropane	ND ug/L	1.0	0.27	1		11/05/11 02:19	78-87-5		
1,3-Dichloropropane	ND ug/L	1.0	0.28	1		11/05/11 02:19	142-28-9		
2,2-Dichloropropane	ND ug/L	1.0	0.13	1		11/05/11 02:19	594-20-7		
1,1-Dichloropropene	ND ug/L	1.0	0.49	1		11/05/11 02:19	563-58-6		
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1		11/05/11 02:19	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1		11/05/11 02:19	10061-02-8		
Diisopropyl ether	ND ug/L	1.0	0.12	1		11/05/11 02:19	108-20-3		
Ethylbenzene	ND ug/L	1.0	0.30	1		11/05/11 02:19	100-41-4		
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1		11/05/11 02:19	87-68-3		
2-Hexanone	ND ug/L	5.0	0.46	1		11/05/11 02:19	591-78-6		
p-Isopropyltoluene	ND ug/L	1.0	0.31	1		11/05/11 02:19	99-87-6		
Methylene Chloride	ND ug/L	2.0	0.97	1		11/05/11 02:19	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	5.0	0.33	1		11/05/11 02:19	108-10-1		
Methyl-tert-butyl ether	ND ug/L	1.0	0.21	1		11/05/11 02:19	1634-04-4		
Naphthalene	ND ug/L	1.0	0.24	1		11/05/11 02:19	91-20-3		
Styrene	ND ug/L	1.0	0.26	1		11/05/11 02:19	100-42-5		
1,1,2-Tetrachloroethane	ND ug/L	1.0	0.33	1		11/05/11 02:19	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	0.40	1		11/05/11 02:19	79-34-5		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 21 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave., Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: MW-6 Lab ID: 92105550007 Collected: 10/31/11 14:15 Received: 11/01/11 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
	Analytical Method: EPA 8260								
Tetrachloroethene	16.6 ug/L	1.0	0.46	1		11/05/11 02:19	127-18-4		
Toluene	ND ug/L	1.0	0.26	1		11/05/11 02:19	108-88-3		
1,2,3-Trichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 02:19	87-61-6		
1,2,4-Trichlorobenzene	ND ug/L	1.0	0.35	1		11/05/11 02:19	120-82-1		
1,1,1-Trichloroethane	ND ug/L	1.0	0.48	1		11/05/11 02:19	71-55-6		
1,1,2-Trichloroethane	ND ug/L	1.0	0.29	1		11/05/11 02:19	79-00-5		
Trichloroethene	0.78J ug/L	1.0	0.47	1		11/05/11 02:19	79-01-6		
Trichlorofluoromethane	0.58J ug/L	1.0	0.20	1		11/05/11 02:19	75-69-4		
1,2,3-Trichloropropane	ND ug/L	1.0	0.41	1		11/05/11 02:19	96-18-4		
Vinyl acetate	ND ug/L	2.0	0.35	1		11/05/11 02:19	108-05-4		
Vinyl chloride	ND ug/L	1.0	0.62	1		11/05/11 02:19	75-01-4		
m,p-Xylene	ND ug/L	2.0	0.66	1		11/05/11 02:19	179601-23-1		
o-Xylene	ND ug/L	1.0	0.23	1		11/05/11 02:19	95-47-6		
<i>Surrogates</i>									
4-Bromofluorobenzene (S)	92 %	70-130				11/05/11 02:19	460-00-4		
Dibromofluoromethane (S)	126 %	70-130				11/05/11 02:19	1868-53-7		
1,2-Dichloroethane-d4 (S)	123 %	70-130				11/05/11 02:19	17060-07-0		
Toluene-d8 (S)	97 %	70-130				11/05/11 02:19	2037-26-5		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 22 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: DUPLICATE	Lab ID: 92105550008	Collected: 10/31/11 00:00	Received: 11/01/11 16:00	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
Acetone	ND ug/L	25.0	2.2	1		11/05/11 04:26	67-64-1		
Benzene	0.51J ug/L	1.0	0.25	1		11/05/11 04:26	71-43-2		
Bromobenzene	ND ug/L	1.0	0.30	1		11/05/11 04:26	108-86-1		
Bromoform	ND ug/L	1.0	0.17	1		11/05/11 04:26	74-97-5		
Bromochloromethane	ND ug/L	1.0	0.18	1		11/05/11 04:26	75-27-4		
Bromodichloromethane	ND ug/L	1.0	0.26	1		11/05/11 04:26	75-25-2		
Bromomethane	ND ug/L	2.0	0.29	1		11/05/11 04:26	74-83-9		
2-Butanone (MEK)	ND ug/L	5.0	0.96	1		11/05/11 04:26	78-93-3		
Carbon tetrachloride	ND ug/L	1.0	0.25	1		11/05/11 04:26	56-23-5		
Chlorobenzene	0.73J ug/L	1.0	0.23	1		11/05/11 04:26	108-90-7		
Chloroethane	2.0 ug/L	1.0	0.54	1		11/05/11 04:26	75-00-3		
Chloroform	ND ug/L	1.0	0.14	1		11/05/11 04:26	67-66-3		
Chloromethane	ND ug/L	1.0	0.11	1		11/05/11 04:26	74-87-3		
2-Chlorotoluene	ND ug/L	1.0	0.35	1		11/05/11 04:26	95-49-8		
4-Chlorotoluene	ND ug/L	1.0	0.31	1		11/05/11 04:26	105-43-4		
1,2-Dibromo-3-chloropropane	ND ug/L	5.0	2.5	1		11/05/11 04:26	96-12-8		
Dibromochloromethane	ND ug/L	1.0	0.21	1		11/05/11 04:26	124-48-1		
1,2-Dibromoethane (EDB)	ND ug/L	1.0	0.27	1		11/05/11 04:26	106-93-4		
Dibromomethane	ND ug/L	1.0	0.21	1		11/05/11 04:26	74-95-3		
1,2-Dichlorobenzene	0.55J ug/L	1.0	0.30	1		11/05/11 04:26	95-50-1		
1,3-Dichlorobenzene	ND ug/L	1.0	0.24	1		11/05/11 04:26	541-73-1		
1,4-Dichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 04:26	106-46-7		
Dichlorodifluoromethane	ND ug/L	1.0	0.21	1		11/05/11 04:26	75-71-8		
1,1-Dichloroethane	ND ug/L	1.0	0.32	1		11/05/11 04:26	75-34-3		
1,2-Dichloroethane	ND ug/L	1.0	0.12	1		11/05/11 04:26	107-06-2		
1,1-Dichloroethene	ND ug/L	1.0	0.56	1		11/05/11 04:26	75-35-4		
cis-1,2-Dichloroethene	8.3 ug/L	1.0	0.19	1		11/05/11 04:26	156-59-2		
trans-1,2-Dichloroethene	0.94J ug/L	1.0	0.49	1		11/05/11 04:26	156-60-5		
1,2-Dichloropropane	ND ug/L	1.0	0.27	1		11/05/11 04:26	78-87-5		
1,3-Dichloropropane	ND ug/L	1.0	0.28	1		11/05/11 04:26	142-28-9		
2,2-Dichloropropane	ND ug/L	1.0	0.13	1		11/05/11 04:26	594-20-7		
1,1-Dichloropropene	ND ug/L	1.0	0.49	1		11/05/11 04:26	563-58-6		
cis-1,3-Dichloropropene	ND ug/L	1.0	0.13	1		11/05/11 04:26	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	1.0	0.26	1		11/05/11 04:26	10061-02-6		
Diisopropyl ether	ND ug/L	1.0	0.12	1		11/05/11 04:26	108-20-3		
Ethylbenzene	ND ug/L	1.0	0.30	1		11/05/11 04:26	100-41-4		
Hexachloro-1,3-butadiene	ND ug/L	1.0	0.71	1		11/05/11 04:26	87-68-3		
2-Hexanone	ND ug/L	5.0	0.46	1		11/05/11 04:26	591-78-6		
p-Isopropyltoluene	ND ug/L	1.0	0.31	1		11/05/11 04:26	99-87-6		
Methylene Chloride	ND ug/L	2.0	0.97	1		11/05/11 04:26	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	5.0	0.33	1		11/05/11 04:26	108-10-1		
Methyl-tert-butyl ether	ND ug/L	1.0	0.21	1		11/05/11 04:26	1634-04-4		
Naphthalene	ND ug/L	1.0	0.24	1		11/05/11 04:26	91-20-3		
Styrene	ND ug/L	1.0	0.26	1		11/05/11 04:26	100-42-5		
1,1,2-Tetrachloroethane	ND ug/L	1.0	0.33	1		11/05/11 04:26	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	0.40	1		11/05/11 04:26	79-34-5		

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 23 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FIBER 2011
Pace Project No.: 92105550

Sample: DUPLICATE	Lab ID: 92105550008	Collected: 10/31/11 00:00	Received: 11/01/11 16:00	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level									
Tetrachloroethene	ND ug/L	1.0	0.46	1		11/05/11 04:26	127-18-4		
Toluene	0.26J ug/L	1.0	0.26	1		11/05/11 04:26	109-88-3		
1,2,3-Trichlorobenzene	ND ug/L	1.0	0.33	1		11/05/11 04:26	87-61-6		
1,2,4-Trichlorobenzene	ND ug/L	1.0	0.35	1		11/05/11 04:26	120-82-1		
1,1,1-Trichloroethane	ND ug/L	1.0	0.48	1		11/05/11 04:26	71-55-6		
1,1,2-Trichloroethane	ND ug/L	1.0	0.29	1		11/05/11 04:26	79-00-5		
Trichloroethene	1.5 ug/L	1.0	0.47	1		11/05/11 04:26	79-01-6		
Trichlorofluoromethane	ND ug/L	1.0	0.20	1		11/05/11 04:26	75-69-4		
1,2,3-Trichloropropane	ND ug/L	1.0	0.41	1		11/05/11 04:26	96-18-4		
Vinyl acetate	ND ug/L	2.0	0.35	1		11/05/11 04:26	108-05-4		
Vinyl chloride	7.7 ug/L	1.0	0.62	1		11/05/11 04:26	75-01-4		
m,p-Xylene	ND ug/L	2.0	0.66	1		11/05/11 04:26	179601-23-1		
o-Xylene	ND ug/L	1.0	0.23	1		11/05/11 04:26	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	92 %		70-130		1		11/05/11 04:26	460-00-4	
Dibromofluoromethane (S)	124 %		70-130		1		11/05/11 04:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	122 %		70-130		1		11/05/11 04:26	17060-07-0	
Toluene-d8 (S)	97 %		70-130		1		11/05/11 04:26	2037-26-5	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 24 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

OC Batch: AIR/13556 Analysis Method: RSK 175
OC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 92105550001, 92105550002, 92105550003, 92105550004

METHOD BLANK:		1093848		Matrix: Water	
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	11/04/11 12:52	
Ethene	ug/L	ND	10.0	11/04/11 12:52	
Methane	ug/L	ND	10.0	11/04/11 12:52	

LABORATORY CONTROL SAMPLE & LCSD:		1093849		1093850						
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	106	112	93	99	70-130	6	30	
Ethene	ug/L	106	100	104	94	98	70-130	4	30	
Methane	ug/L	60.7	60.4	60.6	100	100	70-130	.4	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1093852		1093853							
Parameter	Units	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS % Rec	MS % Rec	MS % Rec Limits	Max RPD	Max RPD	Qual
Ethane	ug/L	ND	94.8	91	122	122	126	131	30-150	.1	30
Ethene	ug/L	ND	88.4	84.9	106	104	120	123	30-150	2	30
Methane	ug/L	2.7	50.5	48.5	3090	4120	738	2880	30-150	28	30 P6

SAMPLE DUPLICATE:		1093851		10174611001		Dup Result		Max RPD		Qualifiers	
Parameter	Units	Result	Result	RPD	RPD	RPD	RPD	RPD	RPD	RPD	Qualifiers
Ethane	ug/L	ND	11.5	10.3	11	11	30	30	30	30	
Ethene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methane	ug/L	48.8 mg/L	45000	8	8	30	E	30	30	30	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 25 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

OC Batch: MPRP/9342 Analysis Method: EPA 6010
OC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 92105550001, 92105550002, 92105550003

METHOD BLANK: 681940 Matrix: Water

Associated Lab Samples: 92105550001, 92105550002, 92105550003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese	ug/L	ND	5.0	11/04/11 15:49	

LABORATORY CONTROL SAMPLE: 681941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese	ug/L	500	482	96	80-120	

MATRIX SPIKE SAMPLE: 681942

Parameter	Units	92105379002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Manganese	ug/L	477	500	935	92	75-125	

SAMPLE DUPLICATE: 681943

Parameter	Units	92105379003 Result	Dup Result	Max RPD	Qualifiers
Manganese	ug/L	336	338	1	20

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 26 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave., Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch: MSV/17216 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92105550001, 92105550002, 92105550003, 92105550004, 92105550005, 92105550006, 92105550007, 92105550008

METHOD BLANK: 682883 Matrix: Water
Associated Lab Samples: 92105550001, 92105550002, 92105550003, 92105550004, 92105550005, 92105550006, 92105550007, 92105550008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/05/11 00:38	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/05/11 00:38	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/05/11 00:38	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/05/11 00:38	
1,1-Dichloroethane	ug/L	ND	1.0	11/05/11 00:38	
1,1-Dichloroethene	ug/L	ND	1.0	11/05/11 00:38	
1,1-Dichloropropene	ug/L	ND	1.0	11/05/11 00:38	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/05/11 00:38	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/05/11 00:38	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/05/11 00:38	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	11/05/11 00:38	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/05/11 00:38	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/05/11 00:38	
1,2-Dichloroethane	ug/L	ND	1.0	11/05/11 00:38	
1,2-Dichloropropane	ug/L	ND	1.0	11/05/11 00:38	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/05/11 00:38	
1,3-Dichloropropane	ug/L	ND	1.0	11/05/11 00:38	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/05/11 00:38	
2,2-Dichloropropane	ug/L	ND	1.0	11/05/11 00:38	
2-Butanone (MEK)	ug/L	ND	5.0	11/05/11 00:38	
2-Chlorotoluene	ug/L	ND	1.0	11/05/11 00:38	
2-Hexanone	ug/L	ND	5.0	11/05/11 00:38	
4-Chlorotoluene	ug/L	ND	1.0	11/05/11 00:38	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/05/11 00:38	
Acetone	ug/L	ND	25.0	11/05/11 00:38	
Benzene	ug/L	ND	1.0	11/05/11 00:38	
Bromobenzene	ug/L	ND	1.0	11/05/11 00:38	
Bromochloromethane	ug/L	ND	1.0	11/05/11 00:38	
Bromodichloromethane	ug/L	ND	1.0	11/05/11 00:38	
Bromoform	ug/L	ND	1.0	11/05/11 00:38	
Bromomethane	ug/L	ND	2.0	11/05/11 00:38	
Carbon tetrachloride	ug/L	ND	1.0	11/05/11 00:38	
Chlorobenzene	ug/L	ND	1.0	11/05/11 00:38	
Chloroethane	ug/L	ND	1.0	11/05/11 00:38	
Chloroform	ug/L	ND	1.0	11/05/11 00:38	
Chloromethane	ug/L	ND	1.0	11/05/11 00:38	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/05/11 00:38	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/05/11 00:38	
Dibromochloromethane	ug/L	ND	1.0	11/05/11 00:38	
Dibromomethane	ug/L	ND	1.0	11/05/11 00:38	
Dichlorodifluoromethane	ug/L	ND	1.0	11/05/11 00:38	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 27 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

METHOD BLANK: 682883 Matrix: Water
Associated Lab Samples: 92105550001, 92105550002, 92105550003, 92105550004, 92105550005, 92105550006, 92105550007, 92105550008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	11/05/11 00:38	
Ethylbenzene	ug/L	ND	1.0	11/05/11 00:38	
Hexachloro-1,3-butadiene	ug/L	0.78J	1.0	11/05/11 00:38	
m,p-Xylene	ug/L	ND	2.0	11/05/11 00:38	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/05/11 00:38	
Methylene Chloride	ug/L	ND	2.0	11/05/11 00:38	
Naphthalene	ug/L	ND	1.0	11/05/11 00:38	
o-Xylene	ug/L	ND	1.0	11/05/11 00:38	
p-Isopropyltoluene	ug/L	ND	1.0	11/05/11 00:38	
Styrene	ug/L	ND	1.0	11/05/11 00:38	
Tetrachloroethene	ug/L	ND	1.0	11/05/11 00:38	
Toluene	ug/L	ND	1.0	11/05/11 00:38	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/05/11 00:38	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/05/11 00:38	
Trichloroethene	ug/L	ND	1.0	11/05/11 00:38	
Trichlorofluoromethane	ug/L	ND	1.0	11/05/11 00:38	
Vinyl acetate	ug/L	ND	2.0	11/05/11 00:38	
Vinyl chloride	ug/L	ND	1.0	11/05/11 00:38	
1,2-Dichloroethane-d4 (S)	%	117	70-130	11/05/11 00:38	
4-Bromofluorobenzene (S)	%	93	70-130	11/05/11 00:38	
Dibromofluoromethane (S)	%	121	70-130	11/05/11 00:38	
Toluene-d8 (S)	%	97	70-130	11/05/11 00:38	

LABORATORY CONTROL SAMPLE: 682884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.1	100	70-130	
1,1,1-Trichloroethane	ug/L	50	49.2	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	46.2	92	70-130	
1,1,2-Trichloroethane	ug/L	50	51.1	102	70-130	
1,1-Dichloroethane	ug/L	50	47.7	95	70-130	
1,1-Dichloroethene	ug/L	50	49.6	99	70-132	
1,1-Dichloropropene	ug/L	50	50.9	102	70-130	
1,2,3-Trichlorobenzene	ug/L	50	51.3	103	70-135	
1,2,3-Trichloropropane	ug/L	50	47.5	95	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.6	99	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	52.7	105	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.4	105	70-130	
1,2-Dichlorobenzene	ug/L	50	53.5	107	70-130	
1,2-Dichloroethane	ug/L	50	49.1	98	70-130	
1,2-Dichloropropane	ug/L	50	50.5	101	70-130	
1,3-Dichlorobenzene	ug/L	50	52.3	105	70-130	
1,3-Dichloropropane	ug/L	50	51.5	103	70-130	
1,4-Dichlorobenzene	ug/L	50	49.2	98	70-130	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 28 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

LABORATORY CONTROL SAMPLE: 682884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	45.1	90	58-145	
2-Butanone (MEK)	ug/L	100	98.9	99	70-145	
2-Chlorotoluene	ug/L	50	62.2	124	70-130	
2-Hexanone	ug/L	100	96.5	96	70-144	
4-Chlorotoluene	ug/L	50	53.0	106	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	70-140	
Acetone	ug/L	100	104	104	50-175	
Benzene	ug/L	50	49.3	99	70-130	
Bromobenzene	ug/L	50	49.2	98	70-130	
Bromoform	ug/L	50	47.3	95	70-130	
Bromodichloromethane	ug/L	50	50.2	100	70-130	
Bromomethane	ug/L	50	50.9	102	70-130	
Bromomethane	ug/L	50	44.3	89	54-130	
Carbon tetrachloride	ug/L	50	49.7	99	70-132	
Chlorobenzene	ug/L	50	50.7	101	70-130	
Chloroethane	ug/L	50	42.5	85	64-134	
Chloroform	ug/L	50	47.8	96	70-130	
Chloromethane	ug/L	50	43.4	87	64-130	
cis-1,2-Dichloroethene	ug/L	50	46.0	92	70-131	
cis-1,3-Dichloropropene	ug/L	50	51.2	102	70-130	
Dibromochloromethane	ug/L	50	49.2	98	70-130	
Dibromomethane	ug/L	50	50.9	102	70-131	
Dichlorodifluoromethane	ug/L	50	42.6	85	55-130	
Diisopropyl ether	ug/L	50	46.0	92	70-130	
Ethybenzene	ug/L	50	51.3	103	70-130	
Hexachloro-1,3-butadiene	ug/L	50	52.9	106	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methyl-tert-butyl ether	ug/L	50	49.7	99	70-130	
Methylene Chloride	ug/L	50	49.8	100	63-130	
Naphthalene	ug/L	50	52.9	106	70-138	
o-Xylene	ug/L	50	49.4	99	70-130	
p-Isopropyltoluene	ug/L	50	50.6	101	70-130	
Styrene	ug/L	50	50.8	102	70-130	
Tetrachloroethene	ug/L	50	51.1	102	70-130	
Toluene	ug/L	50	48.9	98	70-130	
trans-1,2-Dichloroethene	ug/L	50	46.8	94	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.7	101	70-132	
Trichloroethene	ug/L	50	55.4	111	70-130	
Trichlorofluoromethane	ug/L	50	42.9	86	62-133	
Vinyl acetate	ug/L	100	99.1	99	66-157	
Vinyl chloride	ug/L	50	48.5	97	69-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			101	70-130	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 29 of 40

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 30 of 40

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 682885

Parameter	Units	92105774001	MS		MSD		% Rec	Limits	RPD	Max
			Spike Conc.	Result	Spike Conc.	Result				
1,1-Dichloroethene	ug/L	ND	50	50	64.5	61.4	129	123	70-166	5 30
Benzene	ug/L	ND	50	50	58.0	56.2	116	112	70-148	3 30
Chlorobenzene	ug/L	ND	50	50	58.1	57.7	116	115	70-146	1 30
Toluene	ug/L	ND	50	50	55.5	54.5	111	109	70-155	2 30
Trichloroethene	ug/L	ND	50	50	53.7	52.2	107	104	69-151	3 30
1,2-Dichloroethane-d4 (S)	%						106	109	70-130	
4-Bromofluorobenzene (S)	%						96	97	70-130	
Dibromofluoromethane (S)	%						110	113	70-130	
Toluene-d8 (S)	%						91	91	70-130	



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave, Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch:	WET/18571	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	92105550001, 92105550002, 92105550003		

METHOD BLANK: 685189		Matrix: Water			
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	5.0	11/10/11 10:55	

LABORATORY CONTROL SAMPLE: 685190						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	49.8	100	90-110	

SAMPLE DUPLICATE: 685191						
Parameter	Units	92105550001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	35.0	29.2	18	20	



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave, Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch:	WET/18536	Analysis Method:	SM 3500-Fe D#4
QC Batch Method:	SM 3500-Fe D#4	Analysis Description:	Iron, Ferrous
Associated Lab Samples:	92105550001, 92105550002, 92105550003		

METHOD BLANK: 683886		Matrix: Water			
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.50	11/08/11 12:32	N2

LABORATORY CONTROL SAMPLE: 683887						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.5	1.5	98	90-110	N2

SAMPLE DUPLICATE: 683888						
Parameter	Units	92105319005 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	10.3	10.5	2	20	H1,N2

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 31 of 40

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 32 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch: WET/18501 Analysis Method: SM 4500-S2D
QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 92105550001, 92105550002, 92105550003

METHOD BLANK: 682685 Matrix: Water
Associated Lab Samples: 92105550001, 92105550002, 92105550003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	11/04/11 11:00	

LABORATORY CONTROL SAMPLE: 682686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	.5	0.45	90	90-110	

MATRIX SPIKE SAMPLE: 682687

Parameter	Units	92105550001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	.5	0.26	38	75-125 M1	

SAMPLE DUPLICATE: 682688

Parameter	Units	92105550001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	ND	ND		20	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 33 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch: WET/18451 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92105550001, 92105550002, 92105550003

METHOD BLANK: 681253 Matrix: Water

Associated Lab Samples: 92105550001, 92105550002, 92105550003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	11/07/11 09:50	

LABORATORY CONTROL SAMPLE: 681254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	206	104	84-115	

SAMPLE DUPLICATE: 681255

Parameter	Units	92105550001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	ND	ND		20	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 34 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch:	WETA/10885	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	92105550001, 92105550002, 92105550003		

METHOD BLANK:	681344	Matrix:	Water
Associated Lab Samples:	92105550001, 92105550002, 92105550003		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	11/02/11 14:13	

LABORATORY CONTROL SAMPLE: 681345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.0	95	90-110	

MATRIX SPIKE SAMPLE: 681346

Parameter	Units	92105550001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	66.3	20	88.2	110	90-110	

SAMPLE DUPLICATE: 681347

Parameter	Units	92105550001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	66.3	75.2	13	20	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 35 of 40

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch:	WETA/10904	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
Associated Lab Samples:	92105550001, 92105550002, 92105550003		

METHOD BLANK: 683264 Matrix: Water

Associated Lab Samples: 92105550001, 92105550002, 92105550003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	ND	0.20	11/04/11 23:47	

LABORATORY CONTROL SAMPLE: 683265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	5	5.0	100	90-110	

MATRIX SPIKE SAMPLE: 683266

Parameter	Units	92105298012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	ND	5	5.4	109	90-110	

MATRIX SPIKE SAMPLE: 683268

Parameter	Units	92105298013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	ND	5	5.2	105	90-110	

SAMPLE DUPLICATE: 683267

Parameter	Units	92105298012 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	ND	ND	ND	20	

SAMPLE DUPLICATE: 683269

Parameter	Units	92105298013 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO ₂ plus NO ₃	mg/L	ND	ND	ND	20	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 36 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch: WETA/10908 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 92105550001, 92105550002, 92105550003

METHOD BLANK: 683479 Matrix: Water
Associated Lab Samples: 92105550001, 92105550002, 92105550003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	11/07/11 15:56	

LABORATORY CONTROL SAMPLE: 683480

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.7	104	90-110	

MATRIX SPIKE SAMPLE: 683481

Parameter	Units	92105618001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	55.5	20	76.6	105	75-125	

SAMPLE DUPLICATE: 683482

Parameter	Units	92105618002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	82.5	82.4	0	20	

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 37 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch: WETA/10903 Analysis Method: SM 5220D
QC Batch Method: SM 5220D Analysis Description: 5220D COD
Associated Lab Samples: 92105550001, 92105550002, 92105550003

METHOD BLANK: 683258 Matrix: Water
Associated Lab Samples: 92105550001, 92105550002, 92105550003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	11/04/11 23:00	

LABORATORY CONTROL SAMPLE: 683259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	745	89	90-110	

MATRIX SPIKE SAMPLE: 683260

Parameter	Units	92104991001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	70.0	750	755	91	75-125	

MATRIX SPIKE SAMPLE: 683262

Parameter	Units	92105017001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	112	750	822	95	75-125	

SAMPLE DUPLICATE: 683261

Parameter	Units	92104991001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	70.0	70.0	0	20	

SAMPLE DUPLICATE: 683263

Parameter	Units	92105017001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	112	110	2	20	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 38 of 40



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave., Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FIBER 2011
Pace Project No.: 92105550

QC Batch: WETA/10893 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 92105550001, 92105550002, 92105550003, 92105550004

METHOD BLANK: 682200 Matrix: Water

Associated Lab Samples: 92105550001, 92105550002, 92105550003, 92105550004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	11/04/11 14:10	

LABORATORY CONTROL SAMPLE: 682201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	25.2	101	90-110	

MATRIX SPIKE SAMPLE: 682202

Parameter	Units	92105622001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		7.8	25	30.2	90	75-125

MATRIX SPIKE SAMPLE: 682204

Parameter	Units	92105584006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L		14.5	25	34.3	79	75-125

SAMPLE DUPLICATE: 682203

Parameter	Units	92105550001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L		4.6	4.5	1	20

SAMPLE DUPLICATE: 682205

Parameter	Units	92105584007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L		2.6	2.6	0	20

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 39 of 40

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinney Ave., Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: FIBER 2011
Pace Project No.: 92105550

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-C Pace Analytical Services - Charlotte

PASI-M Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H1 Analysis conducted outside the EPA method holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

N2 The lab does not hold TNI accreditation for this parameter.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Date: 11/21/2011 04:55 PM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Page 40 of 40

Data File: \\Wt\chem\92msv5.i\110411P.b\11041139.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

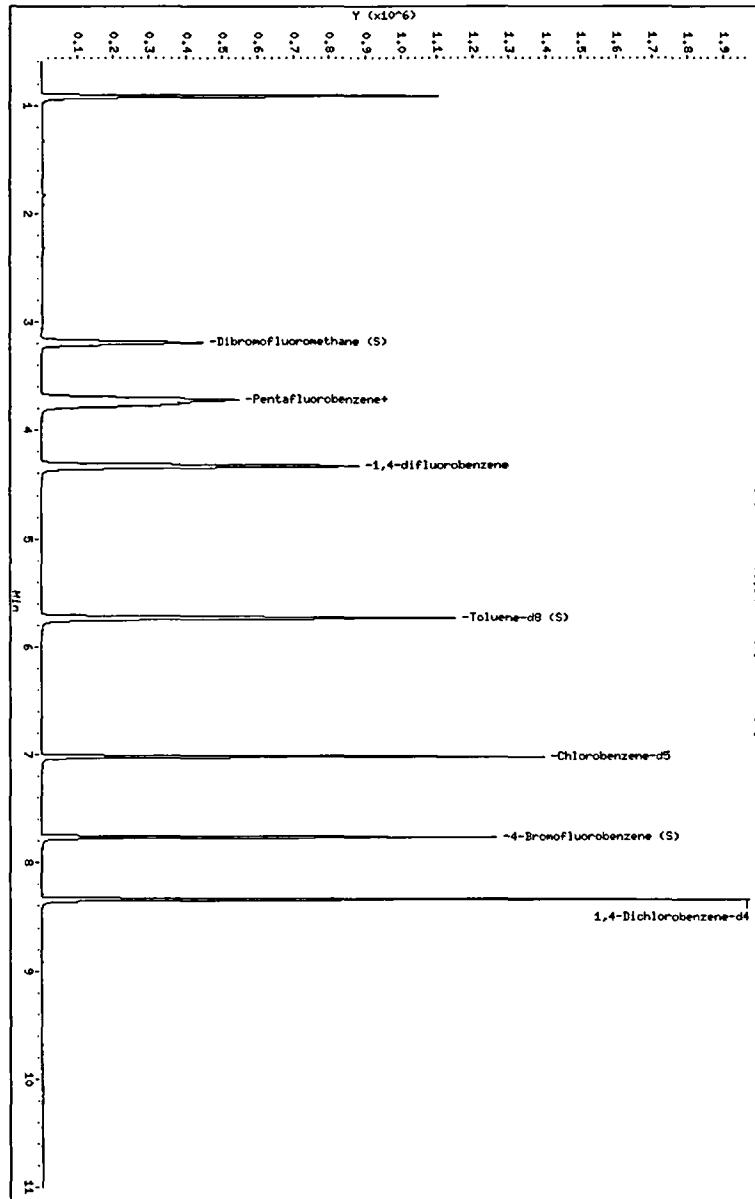
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 92105550001 Client Smp ID: MW-1
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 03:35

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



Data File: \\Wt\chem\92msv5.i\110411P.b\11041139.D
Date : 05-NOV-2011 03:35
Client ID: MW-1
Sample Info: 110411P.B2604LL.MCK-1
Purge Volume: 5.0
Column phase: RTX-WMS

Instrument: 92msv5.1
Operator: MCK
Column diameter: 0.18

Data File: \\Wt\chem\92msv5.i\110411P.b\11041140.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

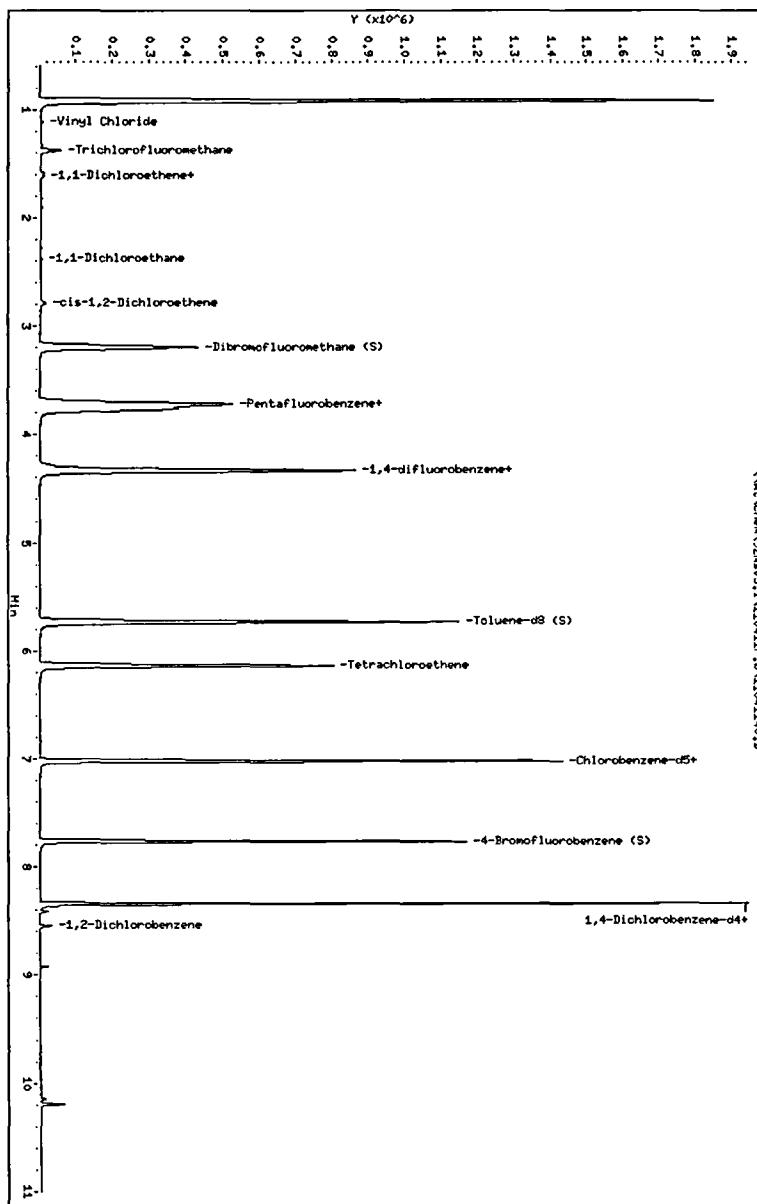
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 9210555002 Client Smp ID: MW-3
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 04:01

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



Data File: \\Wt\chem\92msv5.i\110411P.b\11041140.D
Date : 05-NOV-2011 04:01

Client ID: MCK

Sample Info: 110411P.9260ML.MCK.1

Purge Volume: 5.0

Column phase: RTX-WMS

Instrument: 92msv5.i

Operator: MCK

Column diameter: 0.18

Data File: \\Wt\chem\92msv5.i\110411P.b\11041142.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

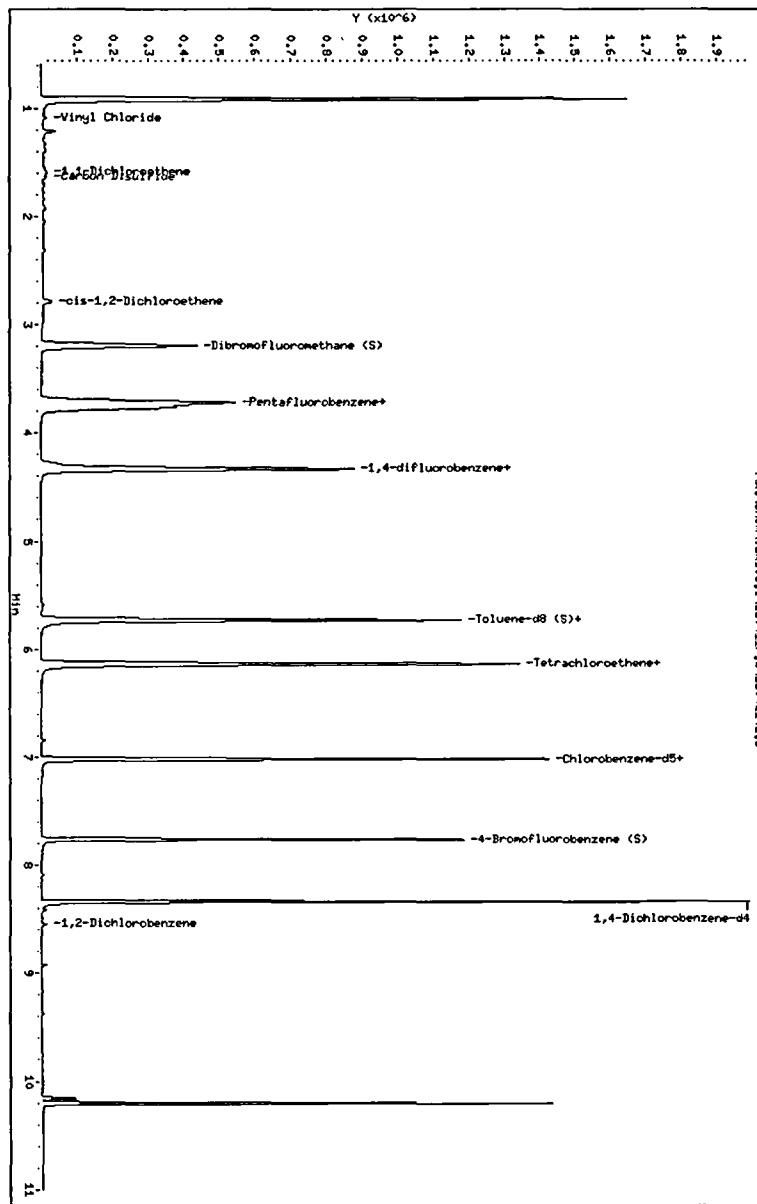
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 92105550003 Client Smp ID: DW-1
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 04:51

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 101-84-8	Diphenyl ether	10.203	31.4	NJ



Data File: \\Wt\chem\92msv5.i\110411P.b\11041142.D
Date : 08-NOV-2011 04:51
Client ID: DW-1
Sample Inv# 110411P.B260ML/MCK-1
Purge Volume: 5.0
Column phase: RTX-WMS

Instrument: 92msv5.i
Operator: MCK
Column diameter: 0.18

\\Wt\chem\92msv5.i\110411P.b\11041142.D

Data File: \\Wt\chem\92msv5.i\110411P.b\11041142.D

Date : 05-NOV-2011 04:51

Client ID: DN-1

Sample Info: 110411P,B260MLL,MCK,1

Purge Volume: 5.0

Column phase: RTX-VMS

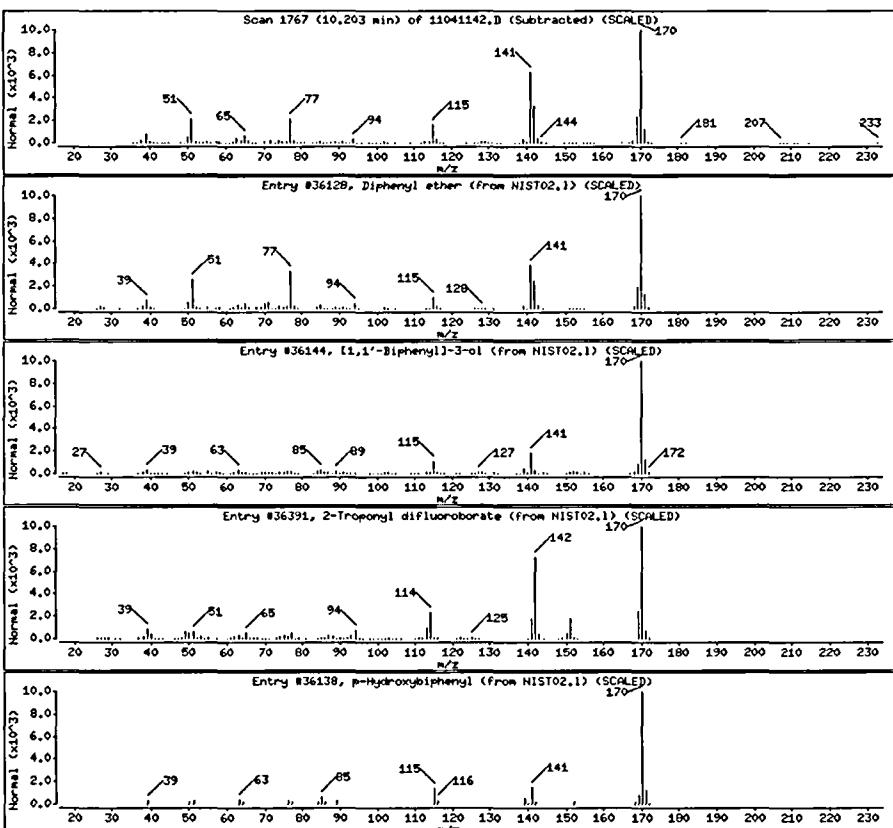
Library Search Compound Hatch

Instrument: 92msv5.i

Operator: MCK

Column diameter: 0.18

	CAS Number	Library	Entry	Quality	Formula	Weight
Diphenyl ether	101-84-8	NIST02,1	36128	83	C12H10O	170
(1,1'-Biphenyl)-3-ol	580-51-8	NIST02,1	36144	50	C12H10O	170
2-Troponyl difluoroborate	22502-10-9	NIST02,1	36391	47	C17H2F2O2	170
p-Hydroxybiphenyl	92-69-3	NIST02,1	36138	43	C12H10O	170



Page 3

Data File: \\Wt\chem\92msv5.i\110411P.b\11041137.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

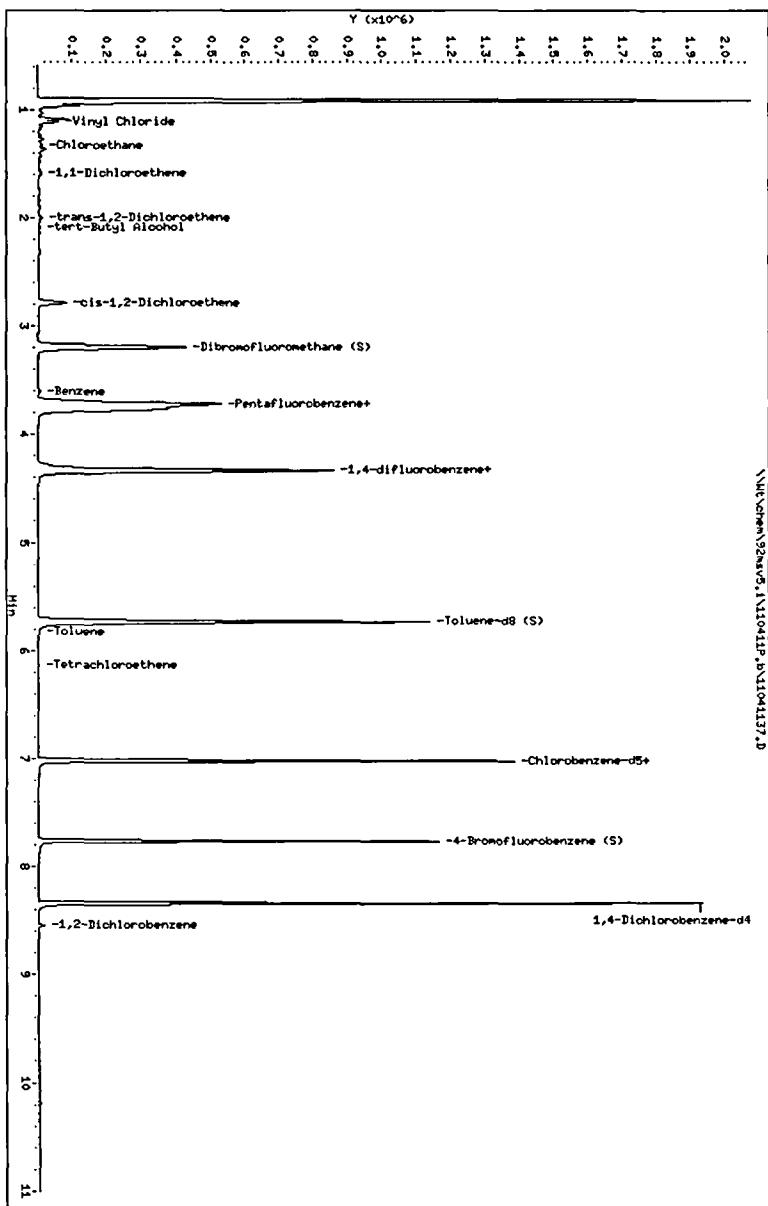
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 92105550004 Client Smp ID: MW-4
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 02:44

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	Propene	0.969	5.28	NJ



Data File: \\Wt\chem\92msv5.i\110411P.b\11041137.D
Date: 05-NOV-2011 02:44
Client ID: HM-4
Sample Info: 110411P,82604LL,HCK,1
Purge Volume: 5.0
Column phase: RTX-VMS
Purge Volume: 6.0
Column phase: RTX-VMS

Instrument: 92msv5.i
Operator: HCK
Column diameter: 0.18

Page 2

Data File: \\Wt\chem\92msv5.i\110411P.b\11041137.D

Date: 05-NOV-2011 02:44

Client ID: HM-4

Instrument: 92msv5.i

Sample Info: 110411P,82604LL,HCK,1

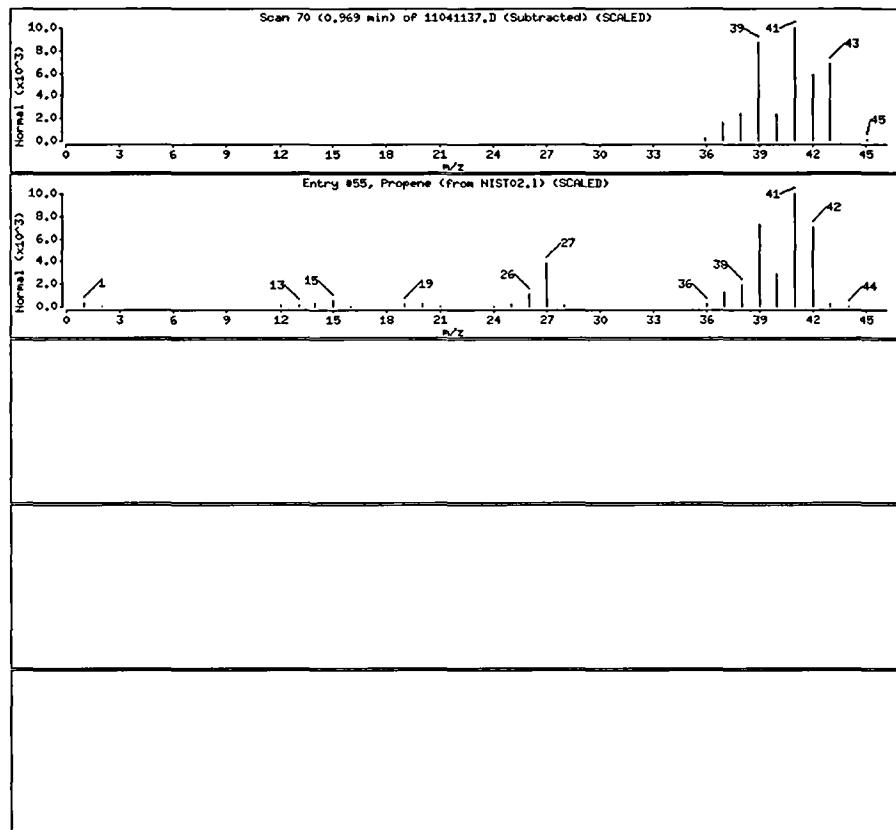
Operator: HCK

Purge Volume: 5.0

Column diameter: 0.18

Column phase: RTX-VMS

Library Search Compound Hatch	CAS Number	Library	Entry	Quality	Formula	Height
Propene	115-07-1	NIST02.i	55	72	C3H6	42



Page 3

Data File: \\Wt\chem\92msv5.i\110411P.b\11041134.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

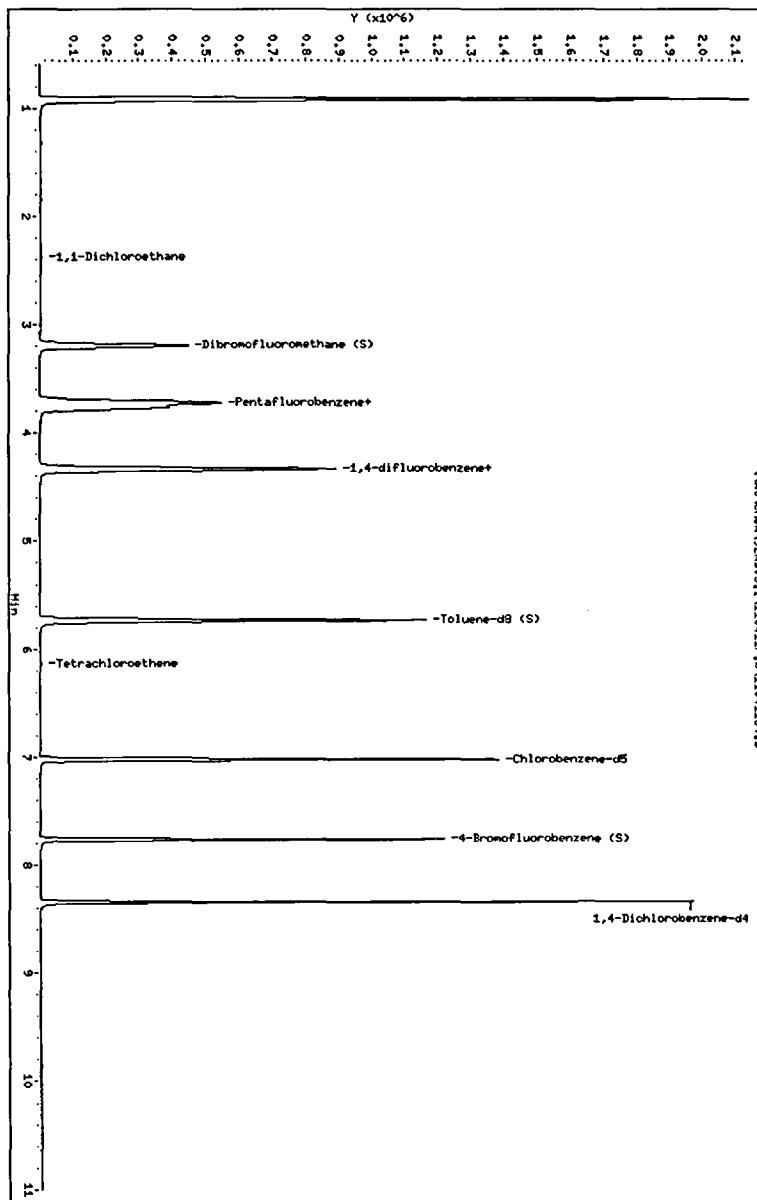
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 92105550005 Client Smp ID: MW-2
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 01:28

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



Data File: \\Wt\chem\92msv5.i\110411P.b\11041134.D
Date : 05-NOV-2011 01:28
Client ID: MW-2
Sample Info: 110411P,9210555,MCK,1
Purge Volume: 5.0
Column Phase: RTX-WIS

Instrument: 92msv5.i
Operator: MCK
Column diameter: 0.18

Data File: \\Wt\chem\92msv5.i\110411P.b\11041135.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

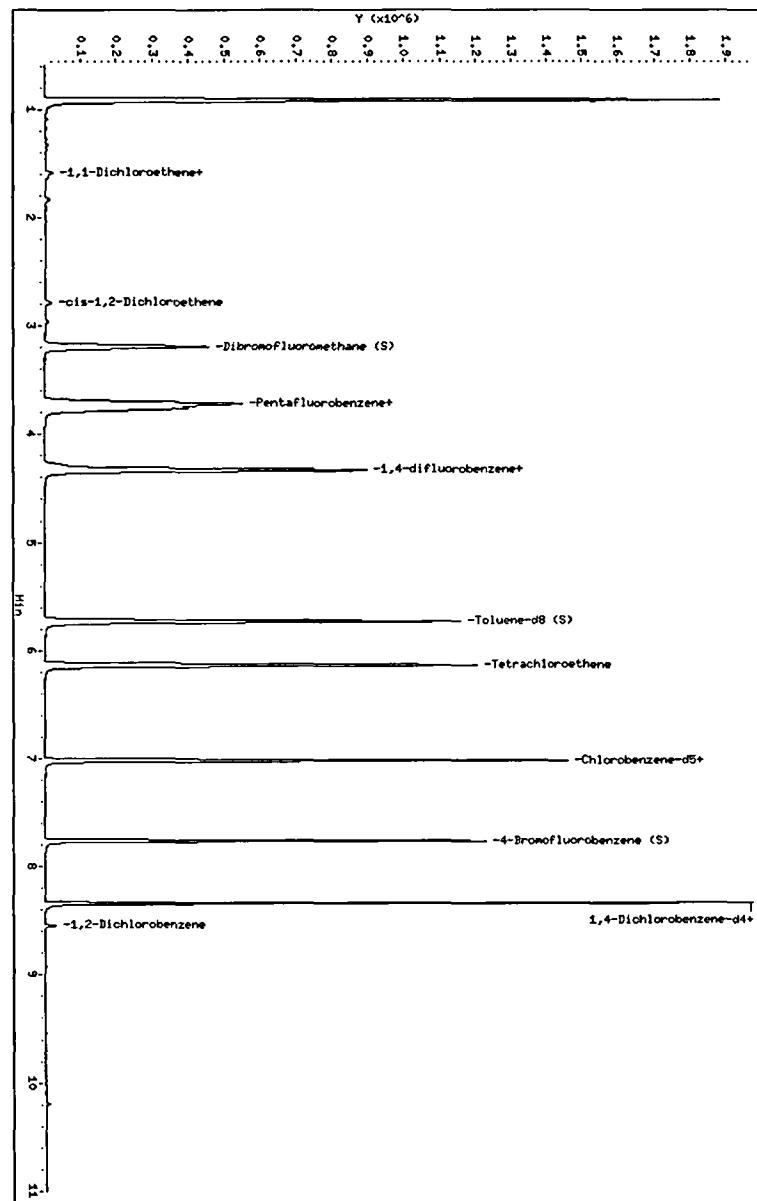
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 9210555006 Client Smp ID: MW-5
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 01:54

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



Data File: \\Wt\chem\92msv5.i\110411P.b\11041136.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

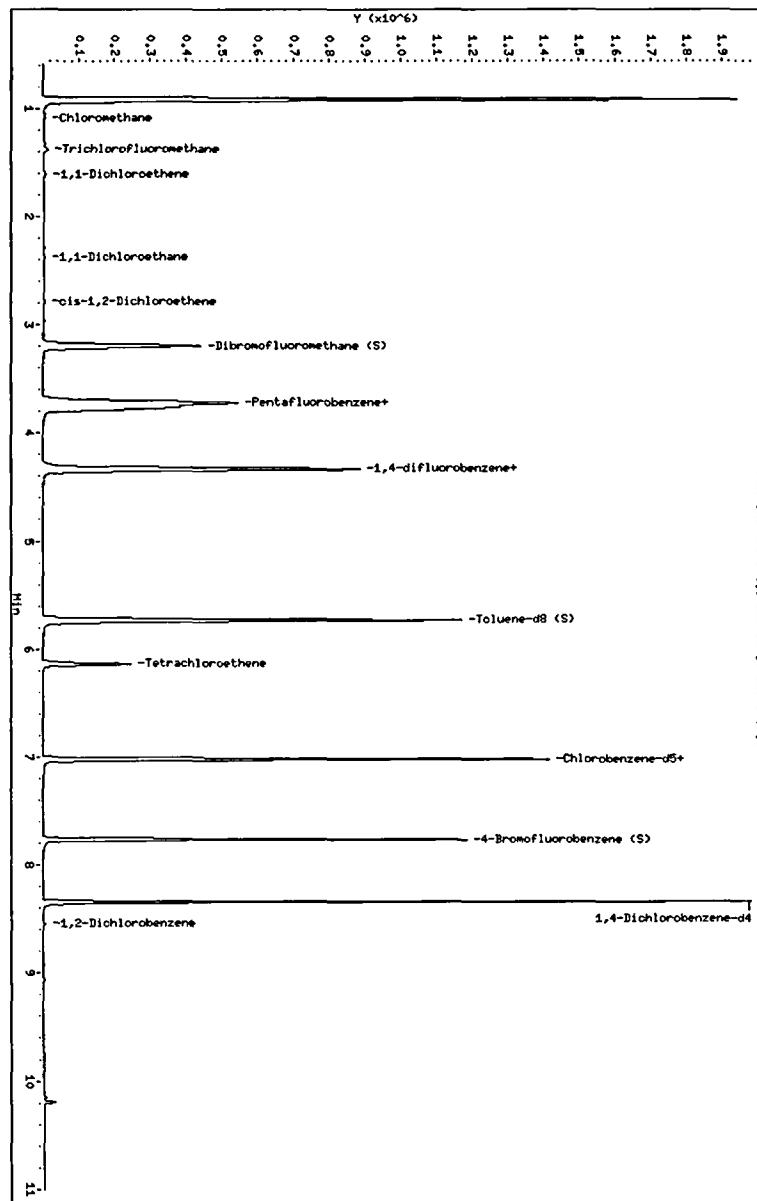
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 92105550007 Client Smp ID: MW-6
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 02:19

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



Data File: \\Wt\chem\92msv5.i\110411P.b\11041136.D
Date: 05-NOV-2011 02:19
Client ID: MW-6
Sample Info: 110411P,8260ML,MCK,1
Purge Volume: 5.0
Column phase: RTX-WIS

Instrument: 92msv5.i
Operator: MCK
Column diameter: 0.18

\\Wt\chem\92msv5.i\110411P.b\11041136.D

Data File: \\Wt\chem\92msv5.i\110411P.b\11041141.D
Report Date: 21-Nov-2011 16:40

Page 1

Pace Analytical Services, Inc.

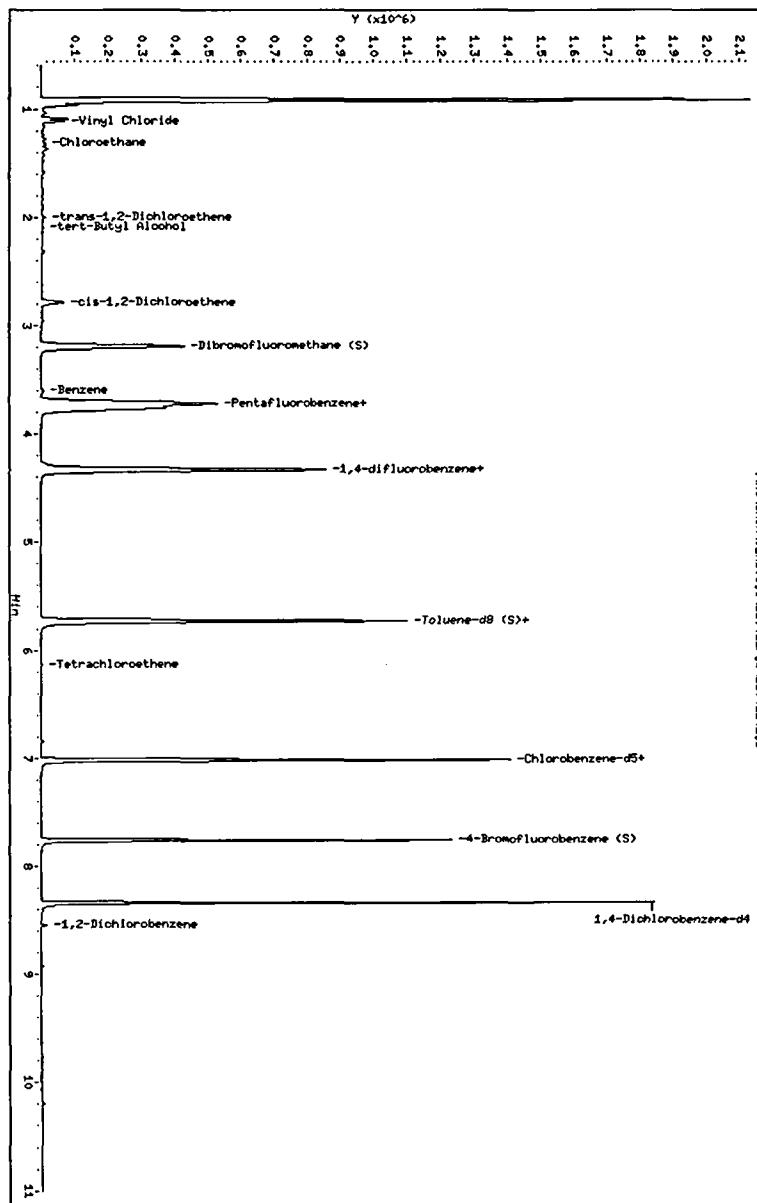
TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Blue Ridge Geologica01-NOV-2011 00:00 Client SDG: 9210555
Lab Smp Id: 92105550008 Client Smp ID: DUPLICATE
Operator : MCK Sample Date: 31-OCT-2011
Sample Location: Sample Point:
Sample Matrix: WATER Date Received:01-NOV-2011 00:00
Analysis Type: VOA Level: LOW
Inj Date: 05-NOV-2011 04:26

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q





CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Company: BRGS Address: 306 Edge Terrace Stc Email To: jeff.gerlach@gmail.com Phone: 336-431-3454 Requested Due Date/TAT: 5/1		Section B Required Project Information: Report To: Jeff Gerlach Copy To: _____ Purchase Order No.: _____ Project Name: Fiber Project Number: 2011		Section C Invoice Information: Attention: Jeff Gerlach Company Name: BRGS Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: E-Waterz 1400-2		Page: 1 of 1 1507796																	
						REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> OTHER																	
						SITE LOCATION: Site Location: NC																	
						STATE: NC																	
						Requested Analysis Filtered (Y/N)																	
ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test (Y/N)	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.					
				COMPOSITE START		COMPOSITE END/GRAB				H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol				Other				
1	MW-1	WT	G	DATE	TIME	DATE	TIME	10/31/11	1330	19	10	21	5	1	X	X	X	X	X	X	X	001	
2	MW-2					1400				3				3	X	X	X	X	X	X	X	002	
3	MW-3					1430				19	10	21	5		X	X	X	X	X	X	X	003	
4	MW-4					1515				9	3	6			X	X							014
5	MW-5					1500				3				3	X								015
6	MW-6					1415				3				3	X								016
7	DW-1					1545				19	10	21	5	1	X	X	X	X	X	X	X	017	
8	Duplicate									3				3	X								018
9																							
10																							
11																							
12																							
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS												
			<i>Jeff Gerlach / BRGS</i>		10/31/11	1300	<i>Jeff Gerlach / Pace</i>		11/1/11	1500													
			<i>John P. Pace</i>		11/1/11	1330	<i>John P. Pace</i>		11/1/11	1330													
			<i>Pace Analytical / Pace</i>		11/1/11	1600	<i>Pace Analytical / Pace</i>		11/1/11	1600	2.9	C	n	c									
ORIGINAL			SAMPLER NAME AND SIGNATURE								Temp in °C	Received on ice (Y/N)	Custody Sealed	Sealed Cooler (Y/N)	Samples intact (Y/N)								
			PRINT Name of SAMPLER: Jeff Gerlach SIGNATURE of SAMPLER: Jeff Gerlach								DATE Signed (MM/DD/YY): 10/31/11												